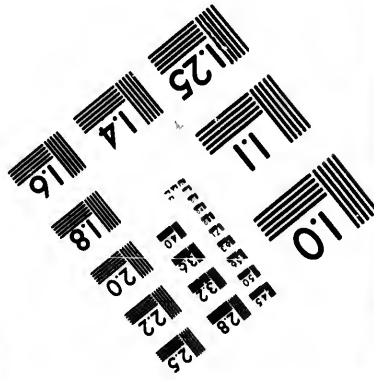
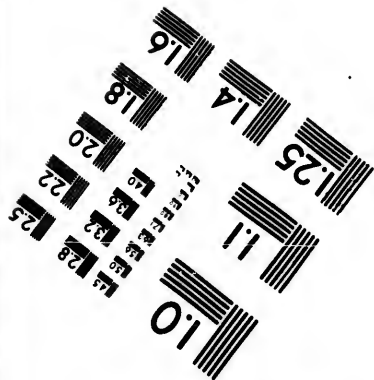
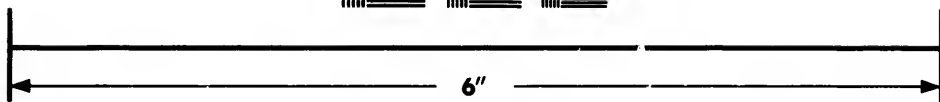
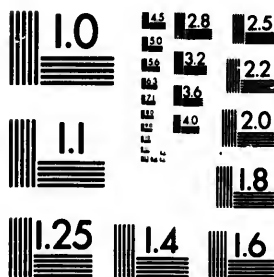


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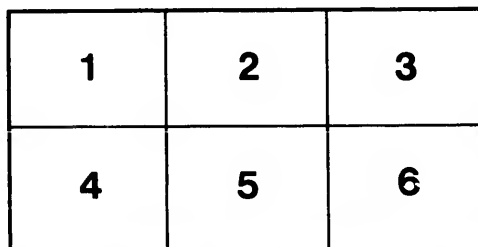
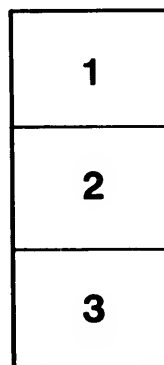
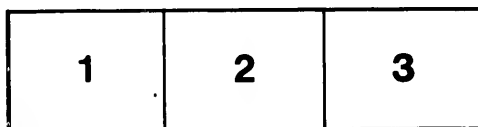
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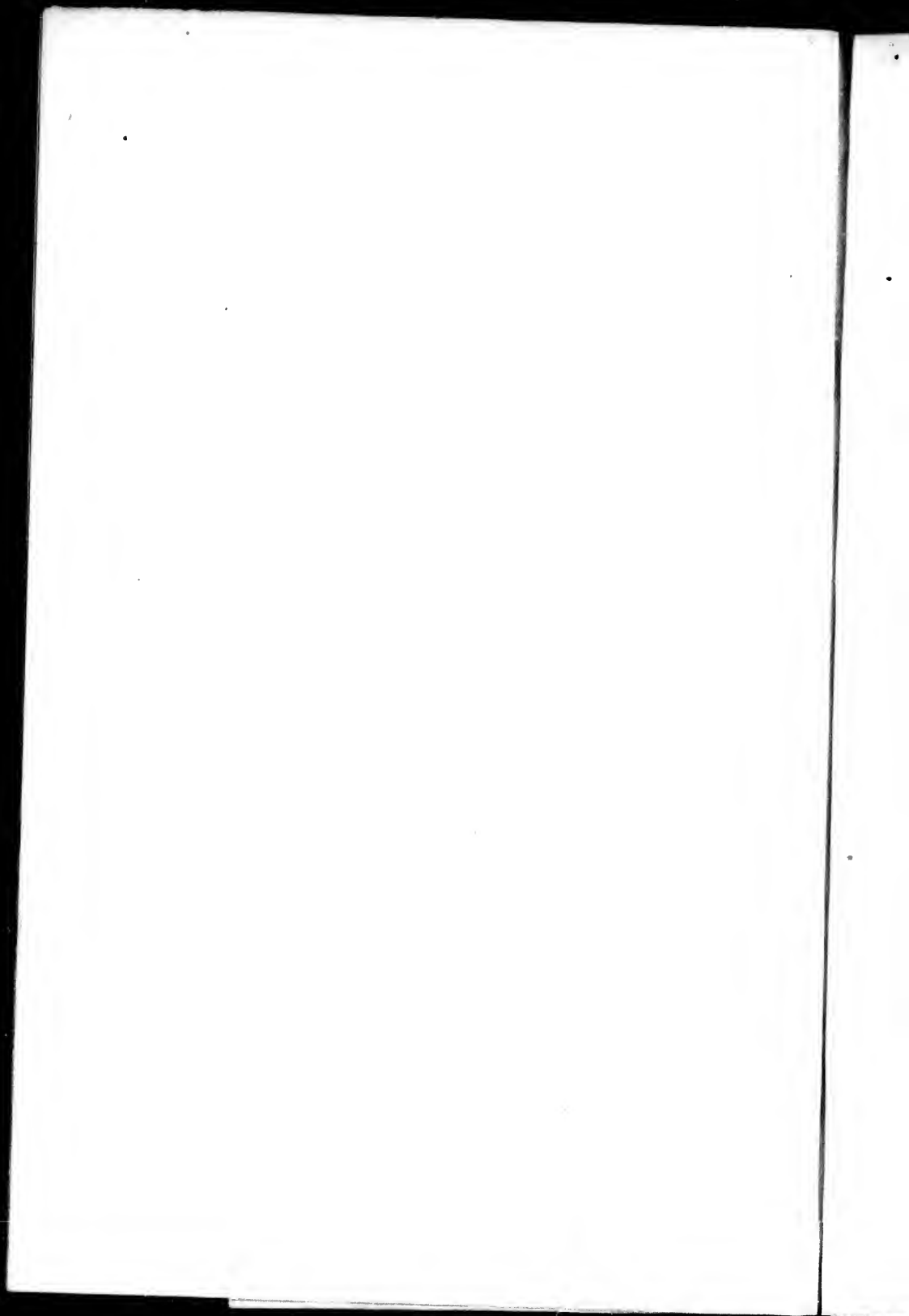
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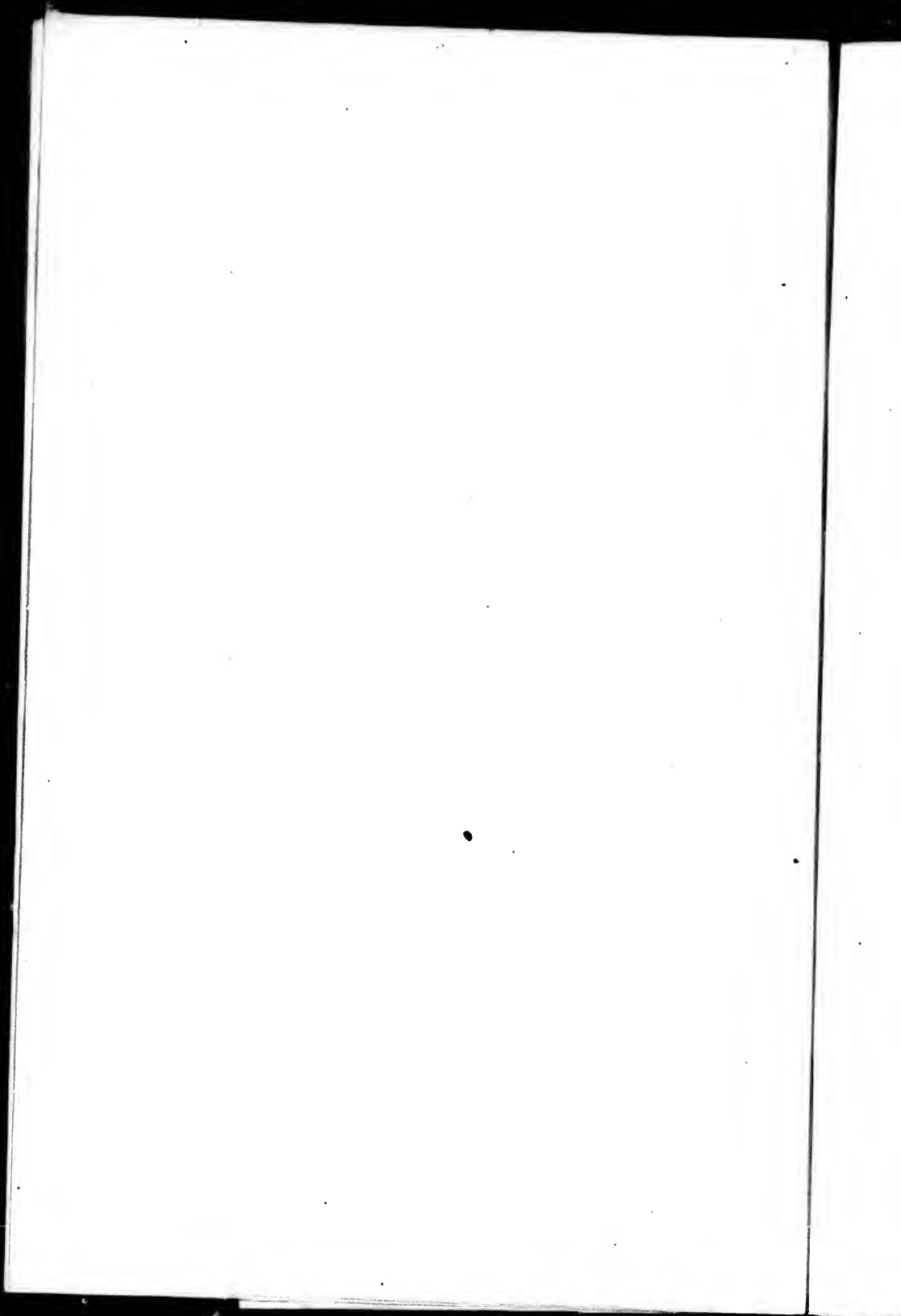
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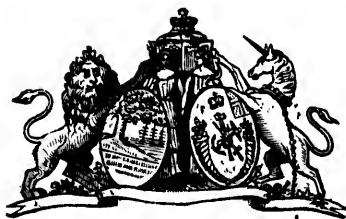


PATENTS
OF
CANADA,

FROM

1849 TO 1855.

VOL. II.



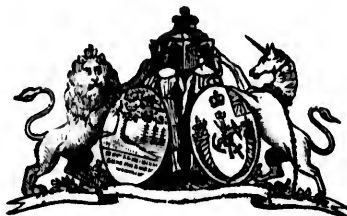
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A. D. 1849.—(CANADA.)—No. 259.

Improved Hinge.

LETTERS PATENT to Charles Midgley, of the City of Montreal,
Machinist, for the Invention of an "IMPROVED HINGE."

Montreal, dated 2nd August, 1849.

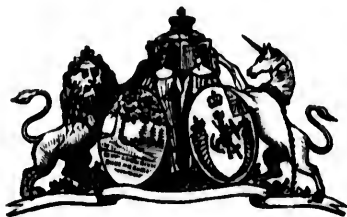
BRIEF DESCRIPTION.

It consists of two parts: one fastened to the carriage box, the door casings, the window casings, and the gate post; and the other to the door, window, window-blind, window-shutter, and gate. The moveable part receives its motion from a slide by means of cogs, arranged in a semicircular manner upon the hinge and fitting the cogs exactly on the side, so that by drawing or pulling the slide, the door, window, &c., move in a semicircle. Near the extremities of the semicircular cogs are two raised inclined planes, arranged so as to fit plane to plane, two more that are grooved out upon the slide at the same distance from each other, that those are upon the hinge when the door, &c., is shut, one plane of the slide fits one of the hinge sliding plane, and plane together so that the notch in the moveable part of the hinge is entered by a guard when the door, &c., is thrown open; the other plane of the slide fits the other plane of the hinge sliding plane and plane together, and a second notch is entered by the same guard. Thus the hinge is so constructed and combined as to exactly move by the slide and fasten itself in these two positions. Two inclined planes with their inclinations towards each other on the slide, and two with their inclinations from each other on the hinge, situated at just half the distance of those described, would throw a carriage door in its proper position, or the

Midgley's Improved Hinge.

door of a house or window that opens inwards: these planes would have to be accompanied by another notch that would fit the same guard. When we pull or push the slide, the planes raise the moveable part of the hinge, thereby unfastening it, and when the hinge swings to the other planes it is there fastened again. There is a guard placed upon the immoveable part of the hinge to protect the door, &c., from being thrown off the hinge. There is a guard upon the moveable part of the hinge that covers an orifice when the door, &c., is shut, rendering it impossible to get at the slide from the outside and protecting it from the elements. The slide is also constructed with a joint, so that when it is drawn in it drops down out of the way and renders the hinges still more secure.

CHARLES MIDGLEY.



A. D. 1849.—(CANADA.)—No. 260.

Improved Accoucheur's Assistant.

LETTERS PATENT to Charles Midgley, of the City of Montreal,
Machinist, for the Invention of an "IMPROVED ACCOUCHEUR'S
ASSISTANT."

Montreal, dated 13th August, 1849.

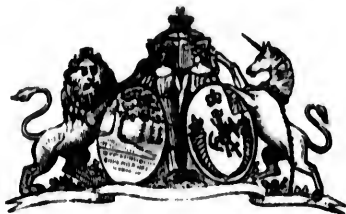
BRIEF DESCRIPTION.

This invention is of a simple nature; its great and principle object is to enable Doctors, Midwives and others to confine females in a sitting position, with less trouble to themselves and pain to their patients. It is made of straps or stays, made with India rubber or any elastic stuff, or springs with pads; the whole is so arranged and fixed on the body as to give ease to the patient and facility to the operator. One of the straps or stays is placed round the back of the neck and is brought down on each side over the shoulders where it is connected with another strap or stay, this strap or stay is made to come round the small of the back or loins of the patient, and is then brought round each knee and fastened with a buckle, another strap or stay connected with the before-mentioned strap, is made to run down each of the legs on both sides, coming round the middle of the sole of the foot, and fastened also with a buckle; the straps or stays can be lengthened or shortened to convenience in the usual manner by the buckles. When the instrument or article is fitted on, in the manner above described, the patient, by pressing forward the knees on the pads, will have the stomach or front part thrown forward by the pad

Midgley's Improved Accoucheur's Assistant.

fixed at the small of the back, and which said pad at the same time will act as a support to the back, and thereby add considerably to the ease of the patient and alleviate immensely her suffering.

CHARLES MIDGLEY.



A. D. 1849.—(CANADA.)—No. 261.

Improved Churn, called the "Propeller Churn."

LETTERS PATENT to Peter Row Higley, of Oshawa, Township of Whitby, in the Home District, for the Invention of an "IMPROVED CHURN, CALLED THE 'PROPELLER CHURN.'"

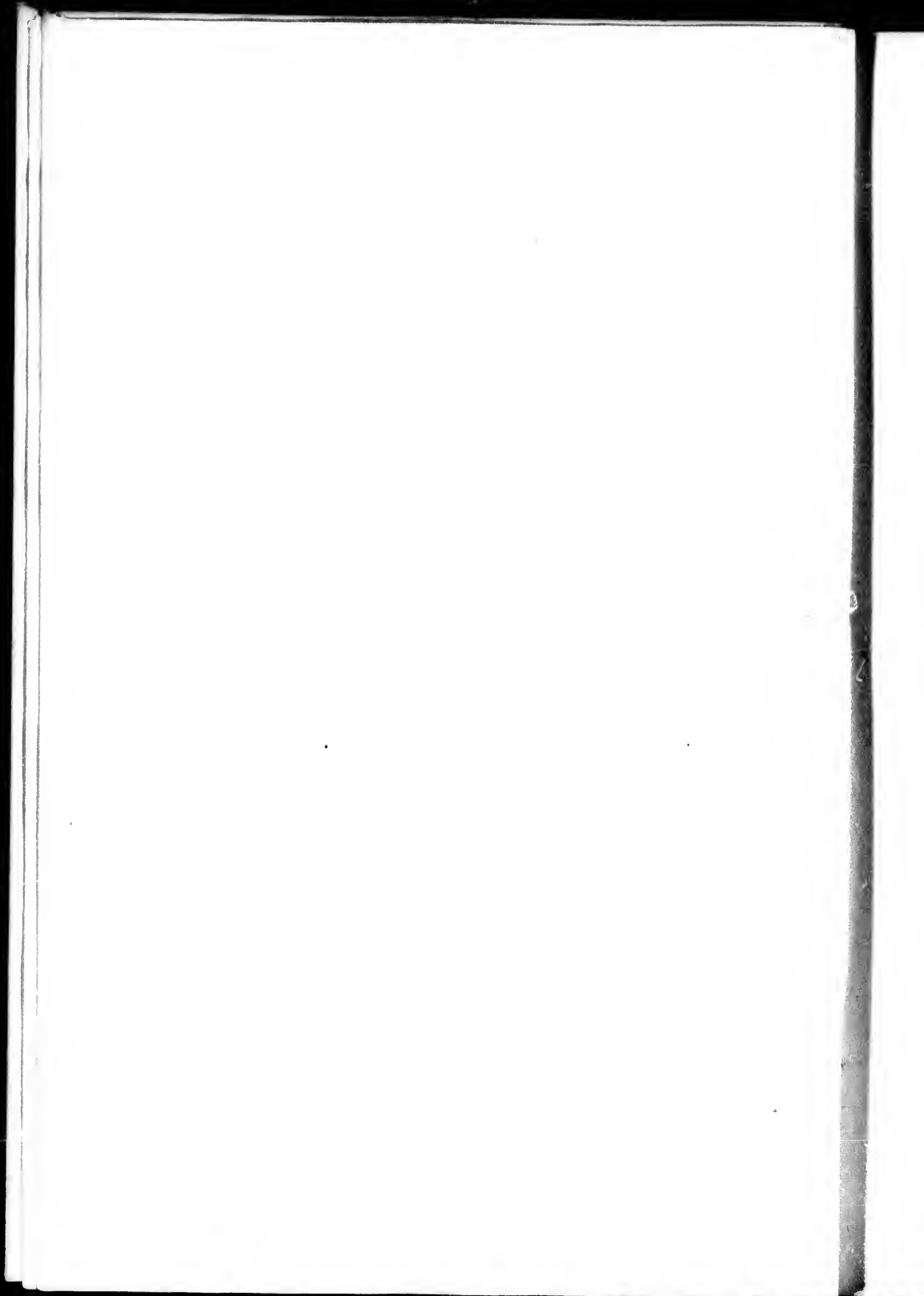
Montreal, dated 30th August, 1849.

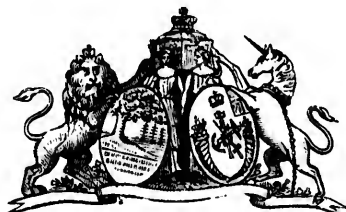
BRIEF DESCRIPTION.

The body of the churn is composed of staves and hoops, in the usual manner. Two staves at opposite sides rise above the others, between which is a cross piece in which the top of an upright shaft in the centre of the churn works. On the upright shaft are placed, at right angles thereto, four arms or paddles termed propellers, two being a little above and at right angles to the others, and so fixed as to form an angle of about twenty-eight degrees with the bottom of the churn, thus forming a screw round the upright shaft, the effect of which is, by turning in one direction, to give an upward as well as circular motion to the cream, and by turning the other way, to give a downward or rotary motion. There are also four brackets placed perpendicularly inside the churn, to check the rotary motion and cause a complete agitation of the cream. The upright shaft and propellers are worked by means of a crank and bevel wheel working in a pinion.

See Drawing No. 261.

PETER ROW HIGLEY.





A. D. 1849.—(CANADA.)—No. 262.

*A Japan Varnish, called the "Chemical Elastic
Japan Varnish."*

LETTERS PATENT to Daniel Mandigo, of the Parish of St. Johns,
in the District of Montreal, Builder, for the Invention of "A
JAPAN VARNISH, CALLED THE 'CHEMICAL ELASTIC JAPAN
VARNISH.'"

Montreal, dated 31st August, 1849.

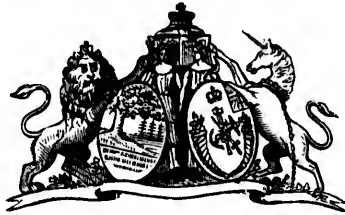
BRIEF DESCRIPTION.

Take of white rosin four ounces, of gum senegal two ounces, of gum sandrac two ounces, of alcohol half a pint, and of spirits of turpentine three quarters of a pint. If the Japan varnish is required for leather or canvass, leave out half the quantity of rosin above mentioned. If required for very fine work, double the quantity of gum senegal and gum sandrac, with two ounces of rosin. If the Japan varnish is required to be very elastic, take four ounces of India rubber dissolved in a quantity of tincture of muriate of iron sufficient to cover the India rubber. The colours for the Japan varnish may be obtained as follows, to wit: for black, take cork black; for green, crome green; for blue, Prussian blue; for red, Chinese vermilion; for white, white lead. The preparation should, after the ingredients are mixed, be allowed to stand from thirty-five to forty days, and should be afterwards strained through a flannel cloth. This varnish will, when applied to harness, cloth, leather, or canvass, not only render it impervious to water, but

Mandigo's Chemical Elastic Japan Varnish

perfectly elastic, and give them a clear glossy appearance; it may be used instead of paint for carriages, and for the roofs and interior of houses, and may be applied on wood, iron, or other articles of a like nature.

DANIEL MANDIGO.



A. D. 1849.—(CANADA.)—No. 263.

A new and improved method of Raising and Lowering Weights.

LETTERS PATENT to Charles Maitland Tate, of the City of Montreal, Civil Engineer, for the Invention of "A NEW AND IMPROVED METHOD OF RAISING AND LOWERING WEIGHTS."

Montreal, dated 3rd September, 1849.

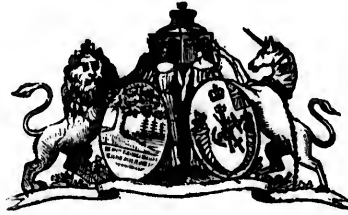
BRIEF DESCRIPTION.

If a body be suspended at the one end of a lever or arm, which moves upon its axis at the other end, and the motion or momentum which this body requires in descending the arc formed by its descent with the arm, from the vertical to the horizontal position, be transmitted by means of pulleys, drums, wheels or levers to a body of similar weight, that body will be raised to such height as will be proportionate to the space passed through, by the descending weight less the friction of the medium used in transmitting the motion from one body to the other, and the momentum necessary to be acquired by the one to overcome the inertia of the other. The method of applying or using this principle is in practice as follows: a load of barrels having been raised by manual or other labour and placed in a swing, the machine is prepared to receive a corresponding load on a raising platform or frame; the carter having delivered his load thereon, signifies to the operator, by means of a bell, or any other convenient manner, that he has done so; the operator then withdraws a small catch, which holds the swing in its place and permits it to hang free, he then relieves the weight of

Tate's method of Raising and Lowering Weights.

a friction strap and the load on the swing begins to descend, carrying out with it the arms from which it hangs. The swing when held in its position having its centre of gravity in advance of the axis of the arms, is consequently at the end of a lever, whose length equals the distance between its centre and the centre of the axis of the arms. A curved lever has its shortest end at this moment engaged by the lifting end of the platform, and this short end, the descending load, connected with it by the means described above, causes it to rise. The swing in descending describes an arc of a circle, and as it leaves its original position increases its leverage; the curved lever also as it revolves on its axis, increases gradually the length of its arm, which equalizes the motion of the descent, and enables the person about to apply this principle, to obtain such height of lift as he may require, by adjusting the parts one to the other; when the swing has descended with its load as far as the arms will allow, the platform is in its upper position and is held there by means of four small catches, a small flap falls down and the barrels fall forward towards the swing. Should it be requisite to allow the barrels to descend still lower, the operator relieves a weight on a clip or lever, and the barrels in the swing outweighing the counterpoise, cause the swing to descend as far as is requisite. When the swing is unloaded by withdrawing the pins which hold the top, and rolling out the barrels, the operator being notified again relieves the weight on the clip, and the counterpoise causes the swing to ascend to its original position. The ascending platform is unloaded, the catches which held it are withdrawn by pressing on a pedal, the friction strap is relieved of its weight, and the arms with the swing are raised up to their original position by a balance weight which is attached to their lower end, at the same time the platform descends. The small catch again secures the swing, the top is raised, the barrels roll in whilst another load is delivered into the rising platform below, when the whole operation is again gone through and another load deposited in the hold of the ship or vessel as the case may be.

CHARLES MAITLAND TATE.



A. D. 1849.—(CANADA.)—No. 264.

An improved Straw Cutter.

LETTERS PATENT to Richard Tremain, Township of Clark, Newcastle District, Engineer, for the Invention of "AN IMPROVED STRAW CUTTER."

Montreal, dated 24th September, 1849.

BRIEF DESCRIPTION.

The frame has two bents, and is supported at the bottom by means of a tie, and at the top by a box made of boards six feet long and ten inches wide, which contains the straw; the posts of the frame are three feet and four inches long, three inches square; the beams and ties are three inches square, the frame is supported by two iron braces, the wheel is four feet in diameter, weighing one hundred pounds, the knife eighteen inches long and five inches wide, in the form of a scythe, which is confined to the wheel by means of screws and nuts, so as to be removed when required for the purpose of sharpening or regulating. At the mouth of the box which contains the straw, and as the wheel moves round, there is a rod connected with a lever which raises the gate to admit the straw, and another rod to lift the catch which moves the ratchet wheel, which is connected with the under roller on the right side and a spindle passing through the roller to the left side; to receive a cogwheel which moves the top roller, the straw is drawn forward by and between the two rollers according to the speed of the wheel; when the regulator is down the length of the cut straw will be three quarters of an inch, when up one hole will cut half an inch,

Tremain's Improved Straw Cutter.

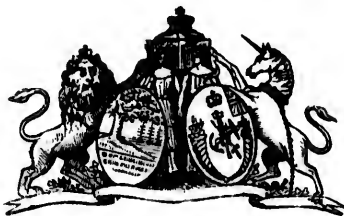
two holes a quarter of an inch, which can be changed every stroke if required; the machine will cut according to its speed and may be worked comfortably by a boy of twelve years of age, and a man of ordinary strength will be able to turn the machine sufficiently to cut two sheaves or bundles of ordinary size in a minute.

See Drawing No. 264.

RICHARD TREMAIN.

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A. D. 1849.—(CANADA.)—No. 265.

A Re-action Pump.

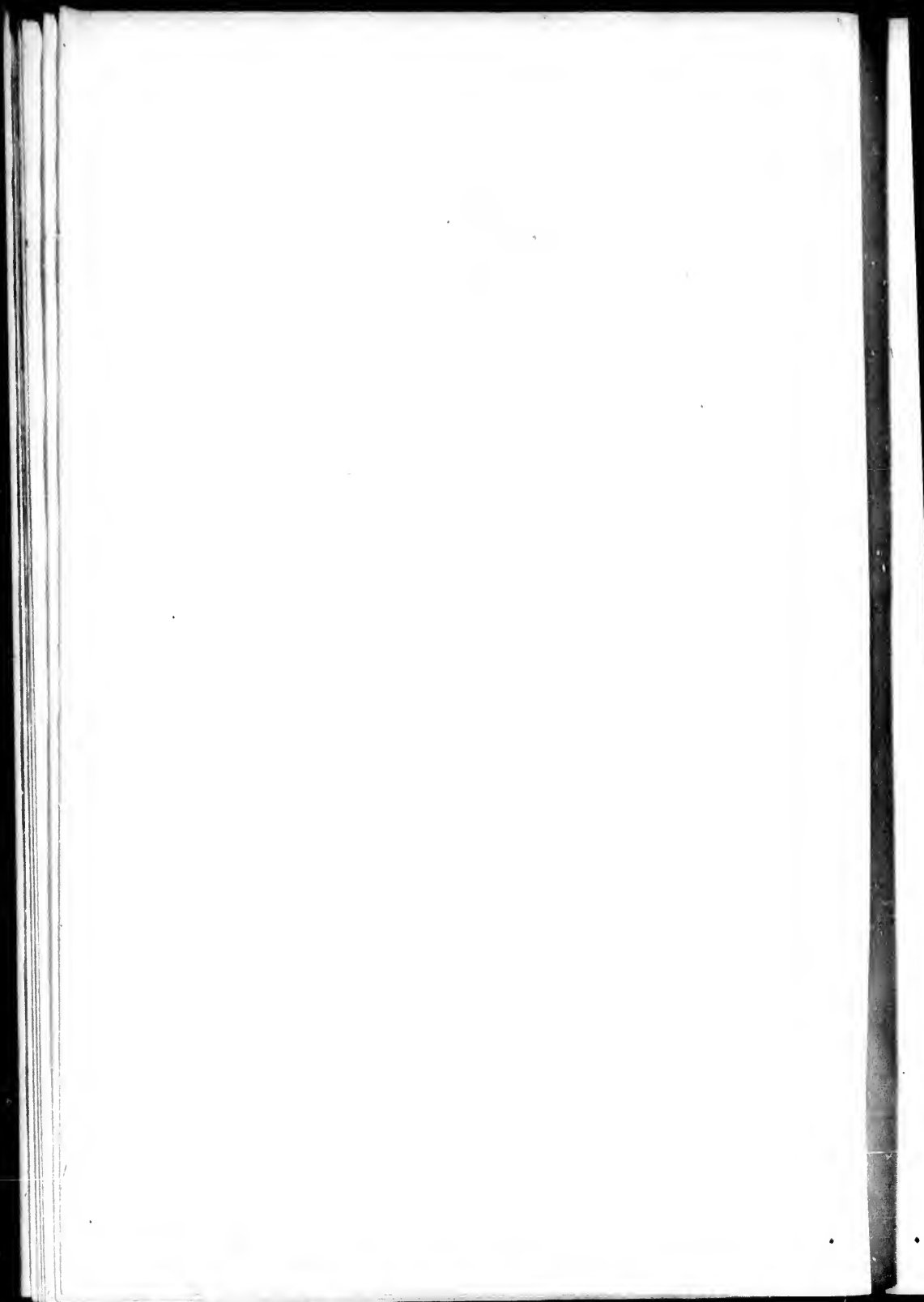
LETTERS PATENT to John Winger, Village of Berlin, District of Wellington, Pump Maker, for the Invention of "A RE-ACTION PUMP."

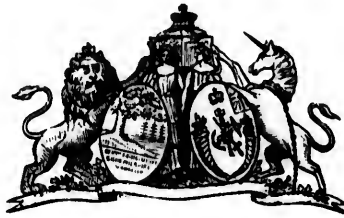
Montreal, dated 28th September, 1849.

BRIEF DESCRIPTION.

Water is drawn by the action of the pump-handle upwards as well as downwards. Across the lower pipe is placed a horizontal one from which rise two others, to which the lower valves are fastened, from these latter rise two copper pipes, in which the two upper valves work. There are two rods attached to a double lever at their upper ends, and to the upper valves at their lower ends, and crossing each other about midway. The pipes or tubes mentioned may be made of any dimensions, and of wood or metal. The advantage gained by the above invention is, that water will be obtained either by the elevation or depression of the pump-handle, and a discharge, in the same time, of about double in quantity to that yielded by the old method.

JOHN WINGER.





A. D. 1849.—(CANADA.)—No 266.

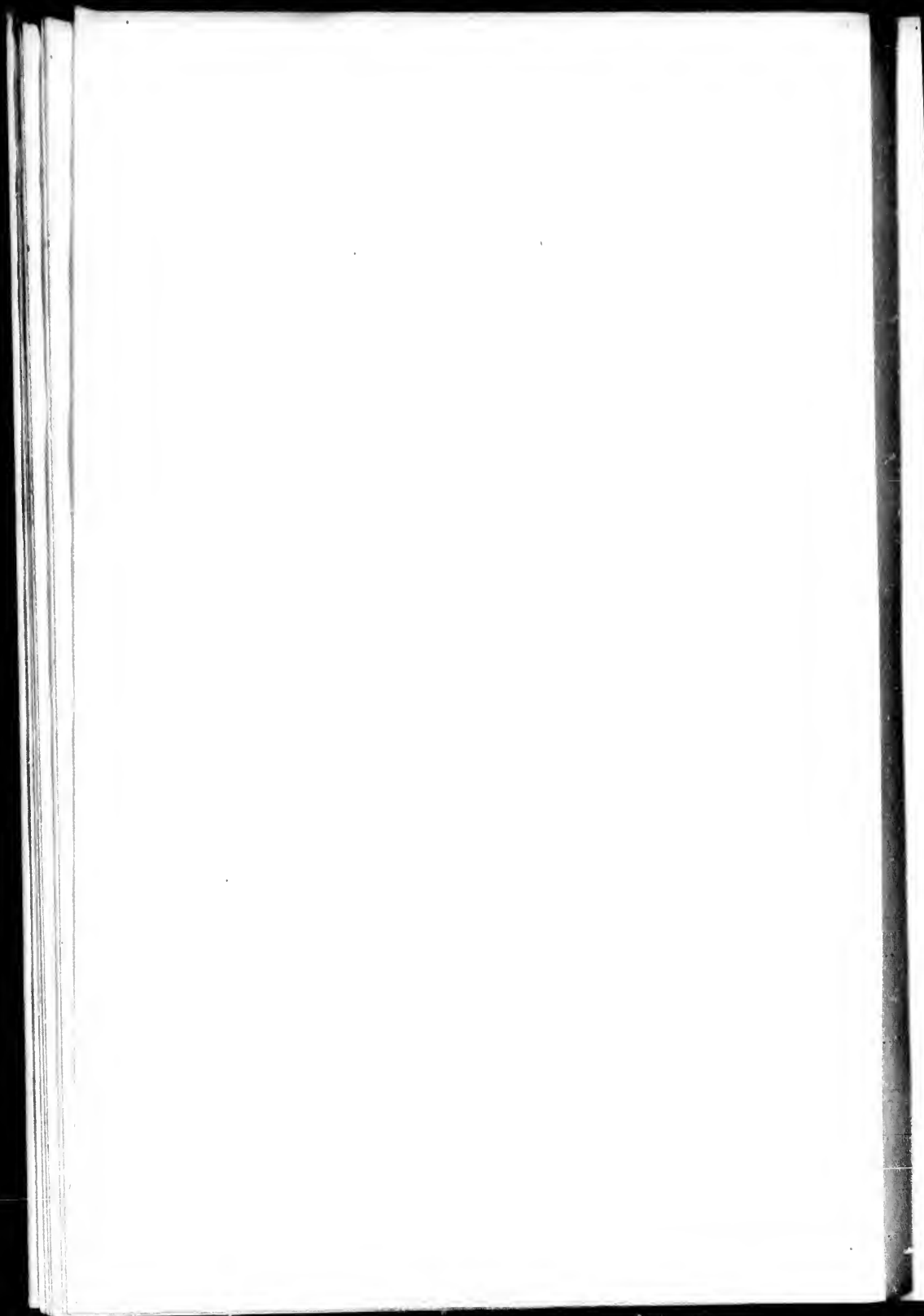
*Improvements in the art of Starch Making, whereby
the process is greatly improved, and rendered
more certain and effectual.*

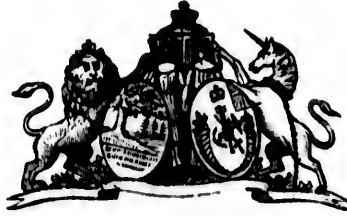
LETTERS PATENT to John Angell Cull, City of Toronto, Starch
Maker, for the Invention of "IMPROVEMENTS IN THE ART OF
STARCH MAKING, WHEREBY THE PROCESS IS GREATLY IMPROVED,
AND RENDERED MORE CERTAIN AND EFFECTUAL."

Montreal, dated 24th September, 1849.

SURRENDERED.

This Patent, and all right and interest thereto was surrendered to
the Crown, under the Act passed in the 12th of Her Majesty's reign,
by the patentee, on the 29th October, 1850, in order that patentee
might receive new and additional patents for certain portions of the
said Invention, which new patents are respectively dated 17th March,
1851, and numbered respectively 314 and 315, in vol. No. 2.





A. D. 1849.—(CANADA.)—No. 267.

A new and useful Saw Mill.

LETTERS PATENT to Charles Midgley, City of Montreal, Machinist,
for the Invention of "A NEW AND USEFUL SAW MILL."
Montreal, dated 13th August, 1849.

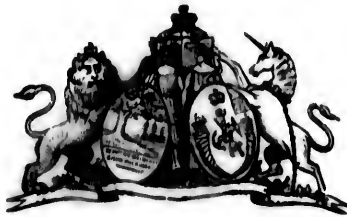
BRIEF DESCRIPTION.

It has for its object the regulation of the feed of saw mills, the inclination of ways for a saw frame, the slide bolster, and the side bolster of the carriage-wheel. The motion of this wheel has heretofore been attempted to be governed by "dead or stationary hand or hands" so called, which do not prevent the too great advance of the wheel, and but partially the re-action of the same,—whereas the patentee has discovered that friction, properly applied, remedies both these defects. The nature of this friction consists in applying the principle by a lever purchase, a bearing, a wedge, a brace, a weight, a screw, clamps, or springs, by a combination of these principles, or by applying friction to any appendage connected to, or in contact with the wheel, or by increasing the number or size of the gudgeons. There would still be a lateral spring of the carriage-wheel shaft, which would prevent the feed from being exact. To counteract this, the patentee uses boxes, bearings or friction rollers placed along the carriage-wheel shaft at suitable distances, and having thus obtained control of the wheel, one or more additional rag irons of different sized notches may be used in order to obtain greater variety of feed, as upon either rag iron can go one notch or two, or more at pleasure, of the saw frame. This has always moved in or on perpendicular ways, whereby the saw

Midgley's Saw Mill.

had to be driven forward the whole of its cut, which inclines the strain of the saw to the central line of the saw frame, thereby causing injury to the saw or frame. The patentee has invented inclined ways in which, or on which, the frame moves in sections; these sections are parallel to each other, but so inclined that the saw recedes from the log when it ascends, and advances on it when it descends. These inclinations are made about the medium cut of the saw, and when a greater or lesser feed is to be regulated, the saw is driven slightly forward or back, thus the strain of the saw is kept on a central line with the saw frame, and the injury of the saw and frame is nearly prevented. The patentee constructs a slide bolster on which the log rests, and to which it is firmly fastened by hooks or otherwise. This apparatus moves with the log to be sawed, and prevents its cant or turn while being sawed, and by it logs can be sawed through and through without spoking. Of the side bolster, there is one difficulty at present existing, —when the log is nearly finished, the slab part to be sawed being elevated from the bed block, renders sawing nearly impossible. The patentee uses a bolster, called a side bolster, by which this difficulty is removed.

CHARLES MIDGLEY.



A. D. 1849.—(CANADA.)—No. 268.

*A new method of constructing Capstans, called
"Gilmour's Patent Capstan."*

LETTERS PATENT to John Gilmour, City of Quebec, Merchant,
for the Invention of "A NEW METHOD OF CONSTRUCTING CAPSTANS,
CALLED 'GILMOUR'S PATENT CAPSTAN.'"

Toronto, dated 11th December, 1849.

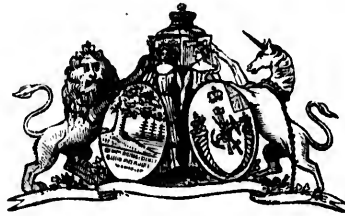
BRIEF DESCRIPTION.

The capstan so invented consists of a long and continuous spindle or shaft of the proper strength, upon which are placed at intervals, drums, around which the ropes or chains employed for lifting or moving the timber or other weight, will be wound when the main spindle or shaft is put in motion, and such shafts or spindles are compelled to revolve with it by connecting them with it by pawls and ratchet wheels, clutch boxes, or other known contrivances of like nature, but which can at pleasure, and without stopping the motion of the said spindle or shaft, be made to slip round upon it by lifting or detaching such pawl, clutch box or other contrivance; each one of the said drums being capable of being so detached from or connected with the said spindle or shaft, independently of the other drums upon the same or any of them, so that any one or more of the ropes connected with any such capstan may be wound up around it or their respective drum or drums, while the other or others may be uncoiled and laid out. That such capstan as aforesaid, may be made to revolve either by manual labor, or by horses, oxen, steam, water or any other motive power, and may be placed in a ship in such manner that the main shaft or spindle shall

Gilmour's Patent Capstan.

run from above the upper deck to the keelson (being properly supported at intervals) and so that there may be one or more drums upon the same, upon or above the main deck, between the decks and in the hold, and that the power being applied to the shaft or spindle upon the main deck or elsewhere, ropes or chains may be wound round and worked by the said drum respectively and independently of each other, and all the various operations of lifting and hauling the timber or other heavy weights requisite for loading or unloading the ship, may be effected with the greatest facility and despatch, without interrupting the continued and regular motion of the main shaft or spindle, and by means thereof; and that on shore or in any other place, such capstan may be placed upon the same principles, in such manner as to produce like effect, and a like saving of labor in the moving of timber or other weights

JOHN GILMOUR.



A. D. 1849.—(CANADA.)—No. 239.

The Lion Plough.

LETTERS PATENT to William Arms, Town of Sherbrooke, Esquire,
for the Invention of "THE LION PLOUGH."

Toronto, dated 28th December, 1849.

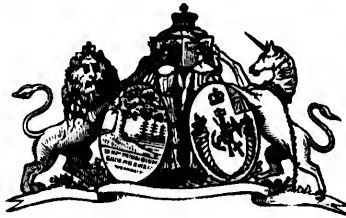
BRIEF DESCRIPTION.

The plough is made entirely of castings, with the exception of the handles, cross bars, and straps, between which the wheel revolves, and the bolts of which there are only three. The plough beam and land side are united in one casting. The beam consists of a thin plate of iron with its edges in a vertical position, upon the upper and under of which edges, and comprising a part of the casting, are flanges which are about four times the width of the said plate of iron, and are intended to give strength to the beam. From the point where the beam merges into the land side it projects in a vertical position about eight inches, and forward in a horizontal direction about four inches, forming a bend, thence proceeding towards the forward end of the beam to within about seven inches, where it makes a dip. Through the beam two holes and projections are made, to which iron straps are attached by bolts, between which the wheel revolves. The bolts can be changed in the three different holes in the straps, by means of which the wheel can be raised or lowered at pleasure. At the forward end of the beam, there is an enlargement where three holes are made to insert the chain for draught. The mould board is attached to the land side by a hook entering a mortise in the land side, attached to the mould board is a semicircular projection opposite one of the same description in the

Arms' Lion Plough.

inner land side, into which the ends of a stud or cross bar are inserted of sufficient length to spread the mould board and keep it perfectly firm. There is also attached to the mould board, opposite one of the same description in the renewing land side, a loop into which the handles of the plough are inserted after passing over the flat side of the semicircular projections, by means of which the above named stud or cross bar is kept in its proper place. The ploughshare and colter are united in one casting and are fastened to the beam and mould board. The colter projects from the point where it merges into the ploughshare upwards about one foot to the beam, forming an angle from a vertical position towards the base of the plough, of about thirty-five inches, and is fastened to the beam by means of a small hook entering a mortise in the beam; and the ploughshare is fastened to the mould board by means of a hook entering a mortise in the mould board and by means of a bolt passing through a hole in the ploughshare and a hole in the mould board. The renewing land side is a small irregular figure intended to be replaced as often as it wears out by a new one, as its name would indicate; it is placed where the plough is subjected to the greatest wear; attached to it is a small loop which passes through a mortise in the land side, through which the left handle passes as above described; said loop answers the threefold purpose of holding on the renewing land side, keeping the stud or cross bar above mentioned in its proper place, and affording a place for the insertion of the left handle to the plough. The handles and cross bars of wood are perfectly simple and of ordinary construction, and of the form seen in the drawing.

WILLIAM ARMS.



A. D. 1850.—(CANADA.)—No. 270.

An improved Plough, called "Mandigo's Improved Plough."

LETTERS PATENT to Daniel Mandigo, of the Town of St. Johns,
Contractor, for the Invention of "AN IMPROVED PLOUGH, CALLED
'MANDIGO'S IMPROVED PLOUGH.'"

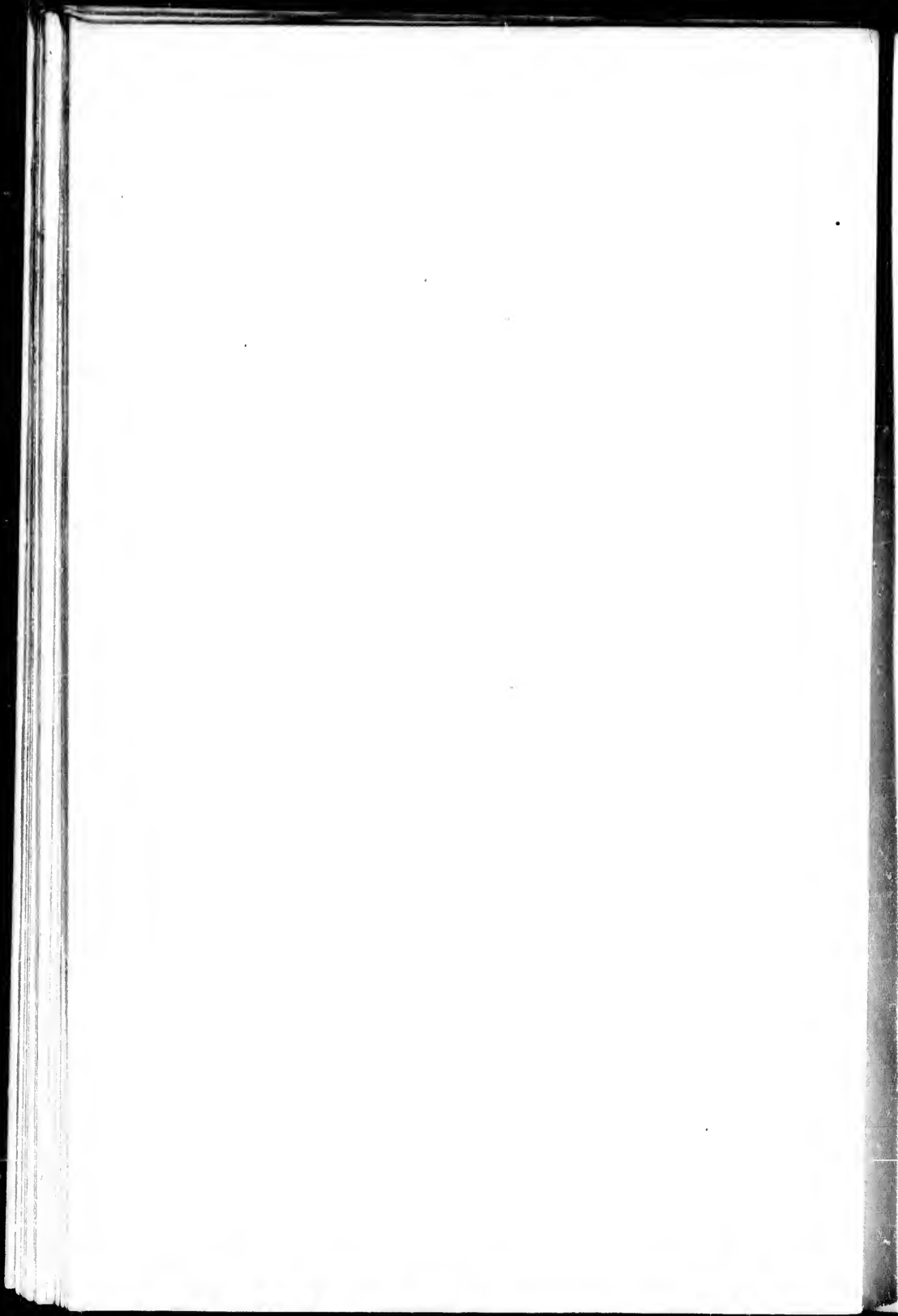
Toronto, dated 30th January, 1850.

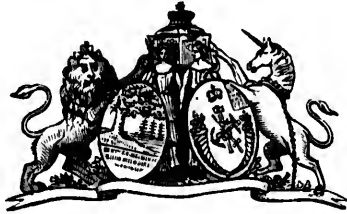
BRIEF DESCRIPTION.

The beam is made of cast or wrought iron or other proper material, is furnished with a slot to receive the share in the usual manner, and is formed of a shape to avoid all liability to choke when in operation, by leaving ample room for the earth or mould to fall off. The bed is furnished with a dovetailed groove to receive a knob or projection on the inner side of the mould board, which, together with a strong hook and tightening wedge, firmly secure the mould board to the bed. The stitts are attached to the bed by a socket and wedges. The coulter fits into a groove on the bed and is secured by means of a pin or wedge. The method of attaching the cattle is by the usual clevis. The improvements consist, firstly, in the improved shape or form of the beam by which liability to choke is avoided; secondly, in the form of the bed, which enables the operator or person about to use the plough to apply to the same bed mould boards, coulter, or shares, to suit the nature of the ground which is to be worked, either for hill-side subsoil or ordinary ploughing, thereby effecting a very considerable saving in expense.

See Drawing No. 270.

DANIEL MANDIGO.





A. D. 1850.—(CANADA.)—No. 271.

Improved Carriage-Spring.

LETTERS PATENT to Daniel Mandigo, of the Town of St. Johns,
Builder, for the Invention of an "IMPROVED CARRIAGE SPRING."

Toronto, dated 22nd January, 1850.

BRIEF DESCRIPTION.

The spring is a coil made of cast steel or other suitable material, which is placed in a cast iron case or trough, secured horizontally to the underside lengthways with the body of the carriage. The casting is formed at one end so as to receive a lever of wrought iron, one end of the same is attached to the gear of the carriage and the other is connected by means of a piston rod with the spring. The method of connecting the lever is as follows: at one end is an iron collar or washer, with a circular hole which, resting against the coil, receives the end of the piston rod which presses against the coil, and produces the requisite motion on the spring. At the small end of the casting is placed a small screw bolt which may easily be adjusted to increase or diminish the tenacity of the coil, and thus graduated, the spring is prepared to resist the weight required.

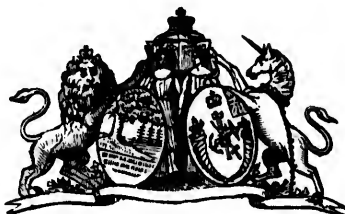
DANIEL MANDIGO.

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A. D. 1850.—(CANADA.)—No. 272.

An improved Seed Drilling Machine.

LETTERS PATENT to William Nixon, of the Township of Grimsby, in the County of Lincoln, Yeoman, for the Invention of "AN IMPROVED SEED DRILLING MACHINE."

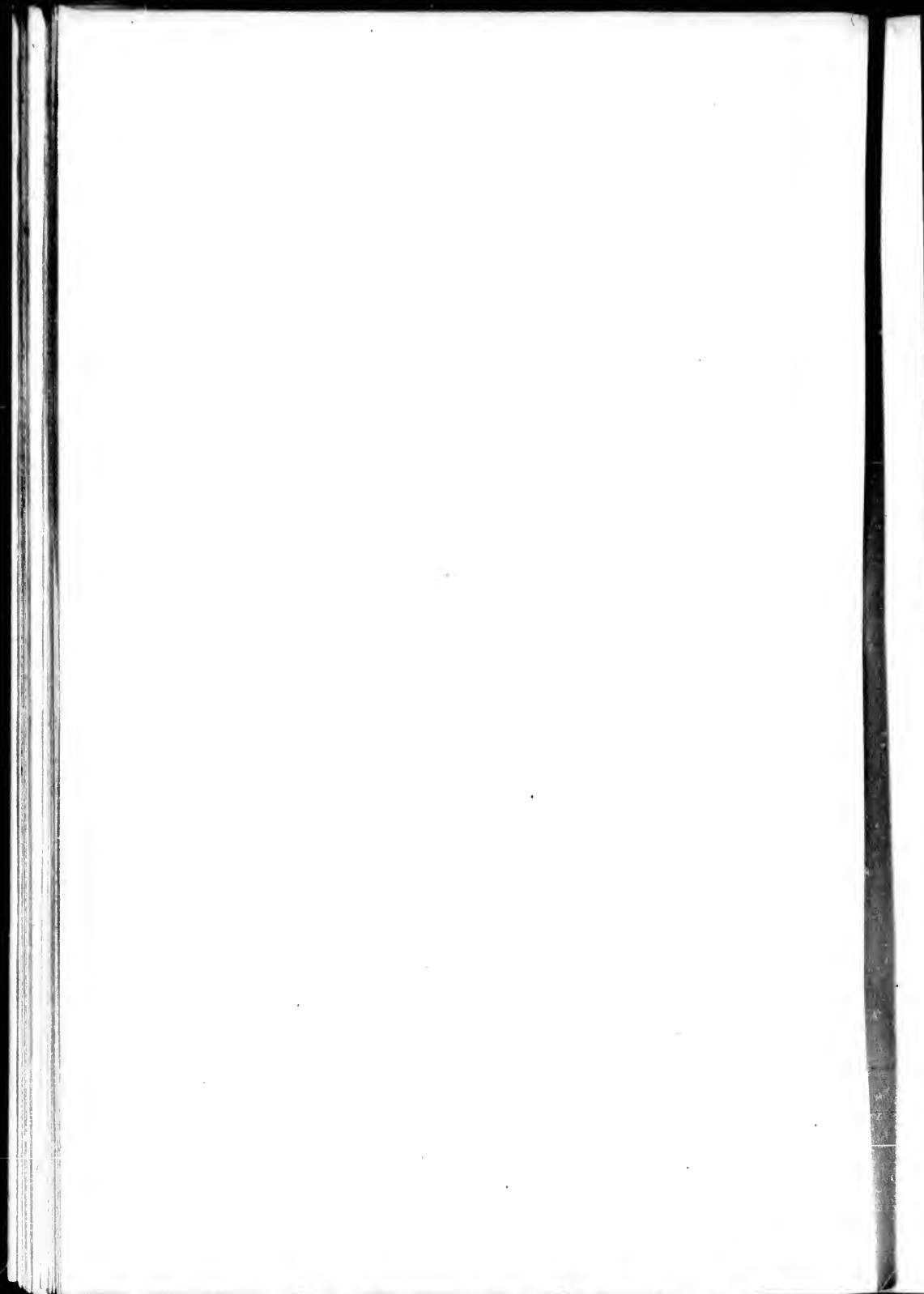
Toronto, dated 28th February, 1850.

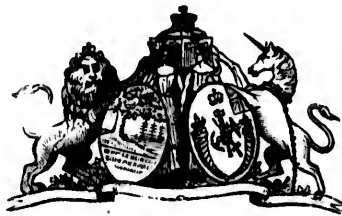
BRIEF DESCRIPTION.

A frame work containing eight beams is hung upon a long bolt and made to rise and fall nine inches; hollow steel teeth are inserted in these beams, and leather pipes convey the grain or article used from the seed hopper into the teeth; two corresponding perforated plates let out the seed, &c., into these tubes; a half-inch round iron, flatted at intervals, correspond with the holes, the flat places of which are twisted two or three times round, forming a screw. This screw is made to revolve by a belt and is put in place of a top slide for sowing lime, plaster, &c. The frame work is bolted below the axle of a pair of wheels which are drawn by horses.

See Drawing No. 272.

WILLIAM NIXON.





A. D. 1850.—(CANADA.)—No. 273.

A new and useful machine or apparatus for Cutting Men's Boots, and determining, with accuracy, the situation of the spring in centre upon which the foot moves.

LETTERS PATENT to James Henry Sampson, of the Township of Glanford, Upper Canada, Cordwainer, for the Invention of "A NEW AND USEFUL MACHINE OR APPARATUS FOR CUTTING MEN'S BOOTS, AND DETERMINING, WITH ACCURACY, THE SITUATION OF THE SPRING IN CENTRE UPON WHICH THE FOOT MOVES."

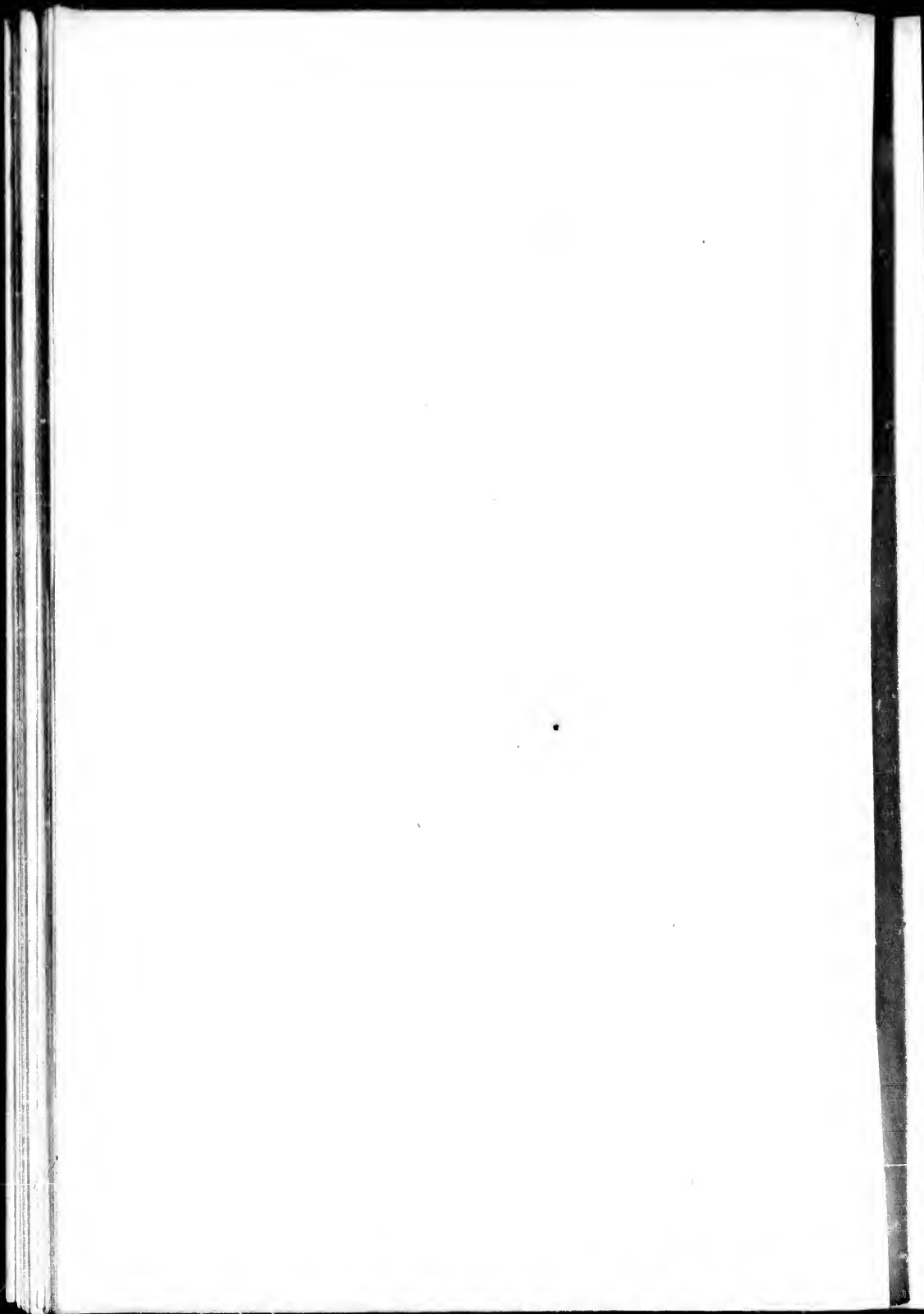
Toronto, dated 6th March, 1850.

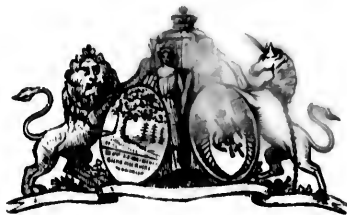
BRIEF DESCRIPTION.

The machine or apparatus is divided into patterns for front and back, each of which is composed of three metal plates, one a fixture, the others moving upon screws and plain posts, and are secured by nuts and washers. In pattern for front, plate B moves one inch horizontally and half an inch perpendicularly. Plate C moves one and a half inch perpendicularly and is connected with plate B in the horizontal movement. In pattern for back, plate B moves one inch horizontally; plate C moves three quarters of an inch vertically or upright, and is connected with plate B in the horizontal movement.

See Drawing No. 273.

JAMES HENRY SAMPSON.





A. D. 1850.—(CANADA.)—No. 274.

An improvement in the process of Tanning Leather.

LETTERS PATENT to Thomas Penney, of the City of Kingston,
Merchant and Leather Dealer, for the Invention of "AN IMPROVE-
MENT IN THE PROCESS OF TANNING LEATHER."

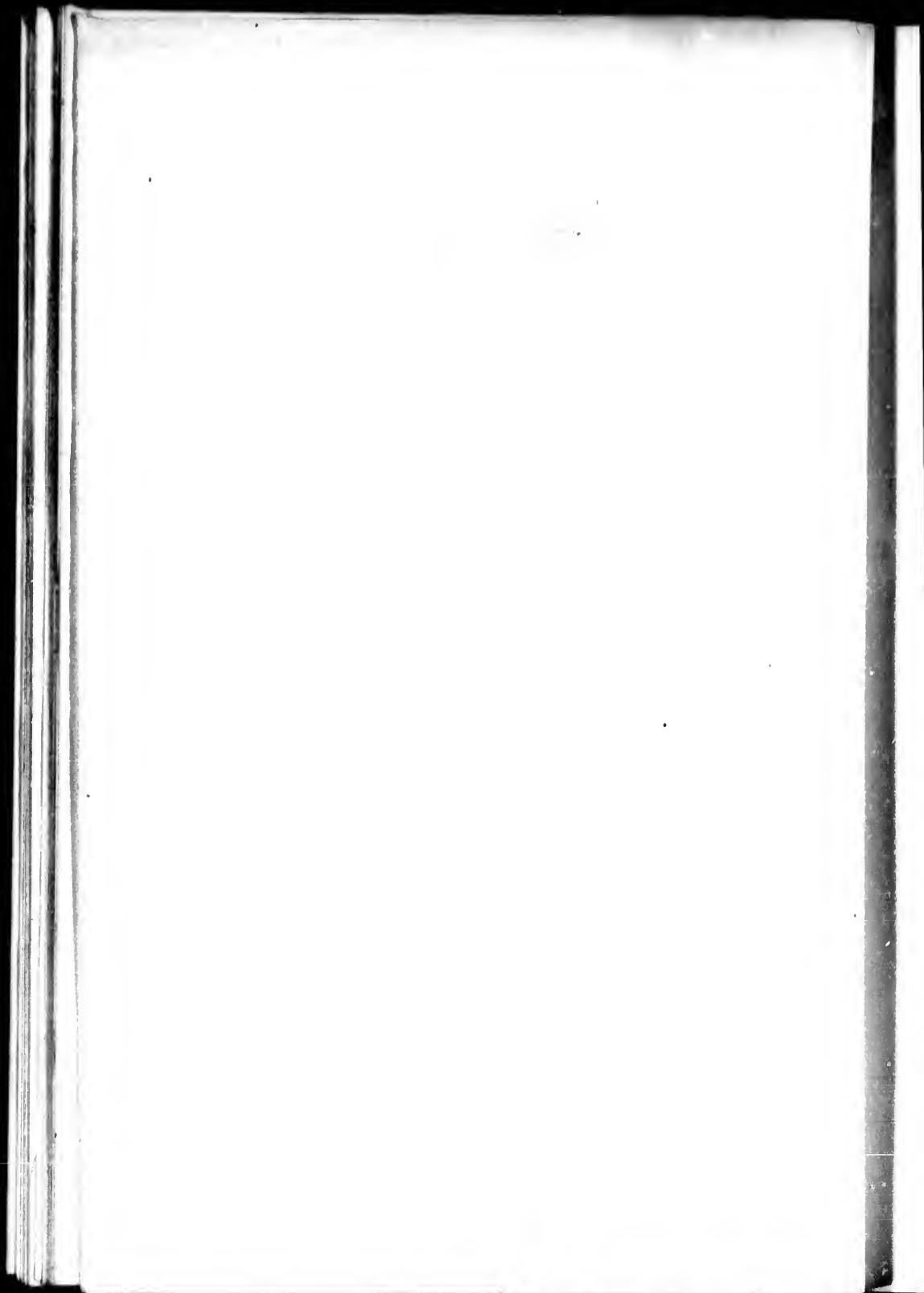
Toronto, dated 6th March, 1850.

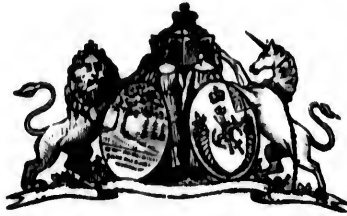
BRIEF DESCRIPTION.

It consists in keeping the hides, during the process of tanning, in motion in the liquor, which motion may be communicated by horse, steam, water, or other power. The resistance of the liquid to such motion being the means of more speedily and effectually saturating the hides than by steeping and handling them as now practised. The power is applied to turning an upright shaft in a vessel made water-tight. The shaft is provided with arms from which the hides are suspended by hooks, pins, or other means, and on the application of the power of the shaft and its arms, are made to revolve and thus to keep the hides in motion in the tanning liquid.

See Drawing No. 274.

THOMAS PENNEY.





A. D. 1850.—(CANADA.)—No. 275.

Portable and stationary Safe for holding ashes.

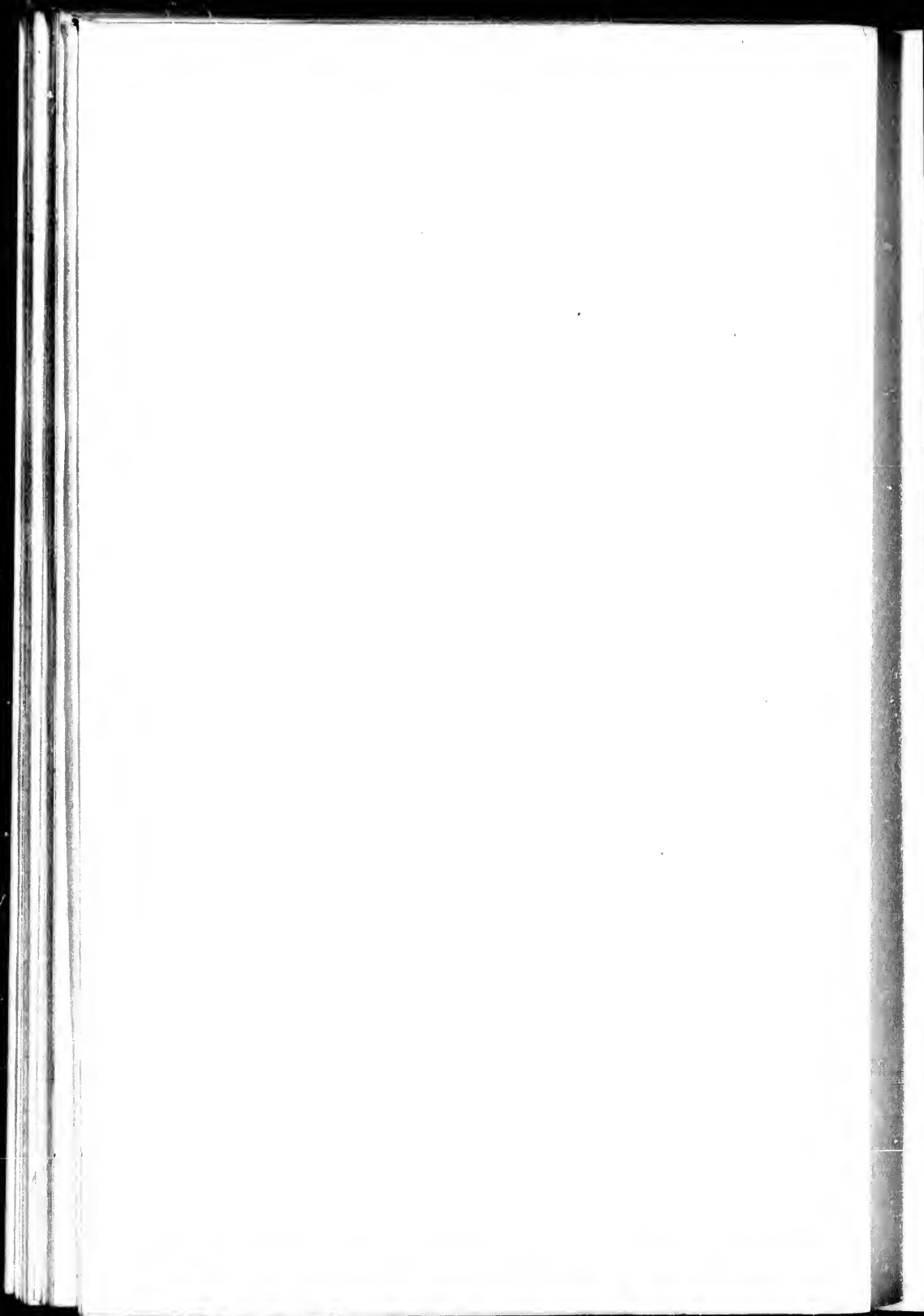
LETTERS PATENT to Alexander Carpenter, of the City of Hamilton, Iron Founder, for the Invention of "A PORTABLE AND STATIONARY SAFE FOR HOLDING ASHES."

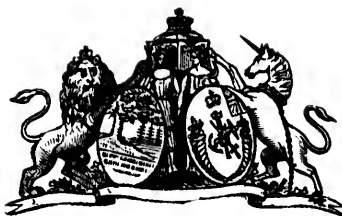
Toronto, dated 18th March, 1850.

BRIEF DESCRIPTION.

The machine is an oblong kettle, manufactured of cast or sheet iron, with a cover made so as to conduct the water outside the kettle, and thus saves the ashes from getting wet or blowing about when hot, and thereby keeping them from setting fire to buildings or other combustibles. It is suspended by means of two gudgeons placed on each side, opposite, in such a manner as to give the bottom the preponderance and thus prevent its upsetting. It has two upright supports in which the above mentioned gudgeons play dovetailed or otherwise, fastened at the bottom to a platform, or it may (as in many cases it will) be suspended upon two wood or iron posts set into the ground, which will be less expensive. A handle is attached to the bottom for the purpose of tipping it over when the ashes are being emptied.

ALEXANDER CARPENTER.





A. D. 1850.—(CANADA.)—No. 276.

Important improvements in the Fanning Mill.

LETTERS PATENT to Francis Gore Willson, of the Township of Saltfleet, in the County of Wentworth, Gentleman, for the Invention of "IMPORTANT IMPROVEMENTS IN THE FANNING MILL."

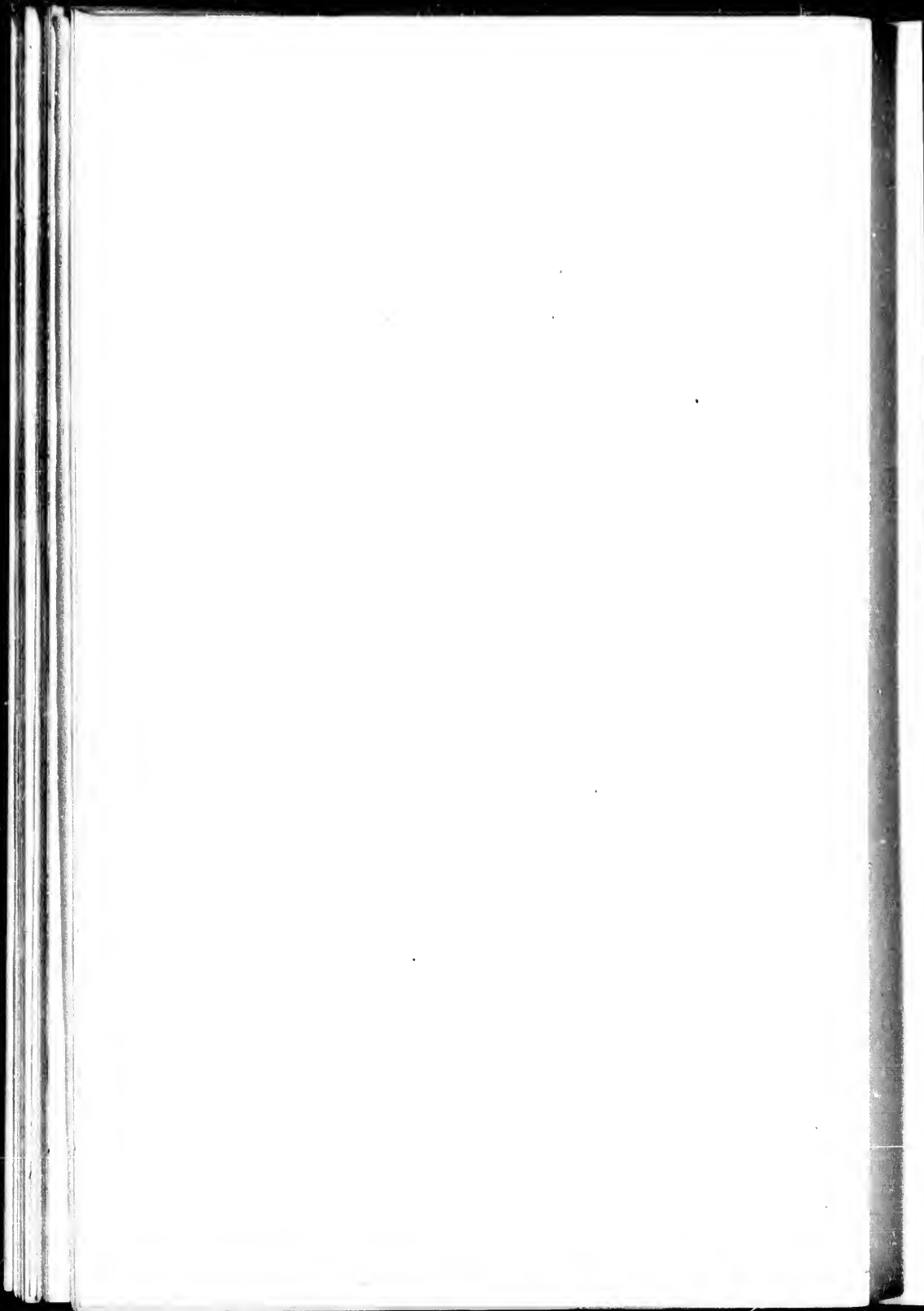
Toronto, dated 13th March, 1850.

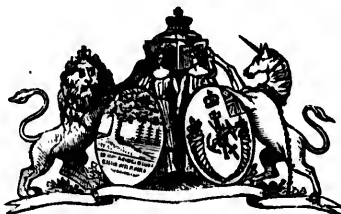
BRIEF DESCRIPTION.

The fanning mill has a double or duplex action of first and second cleaning, (which is the same as passing the grain through two mills of the ordinary kind,) caused by returning the grain after being chaffed by a slide over the whole surface of a second or fine sieve. The shoe is made entirely without grooves. The sieve and screens resting on wire pins and hooks can be placed in any position or raised and depressed at pleasure. The shoe slide rests in the same manner. The grain descends from the hopper upon a rake where a sharp current of wind is thrown upon it from a conductor, then through a riddle, falls on a slide and is met by a middle current from a conductor which takes out all the chaff. A curve composed of two pieces of wood turns the grain on a fine sieve where it has the whole surface of the sieve. As it falls from the curve a current of air is thrown on it from another conductor; it then passes over a chess screen and finally runs down a head slide completely cleaned. The fan shaft has a hollow cast gudgeon on each end, one of which forms the pinion-wheel.

See Drawing No. 276.

FRANCIS GORE WILLSON.





A. D. 1850.—(CANADA.)—No. 277.

Hot air Cooking and Heating Stove.

LETTERS PATENT to Isaac Carter, of St. Johns, in the County of Lincoln, Pattern Maker, for the Invention of an "HOT AIR COOKING AND HEATING STOVE."

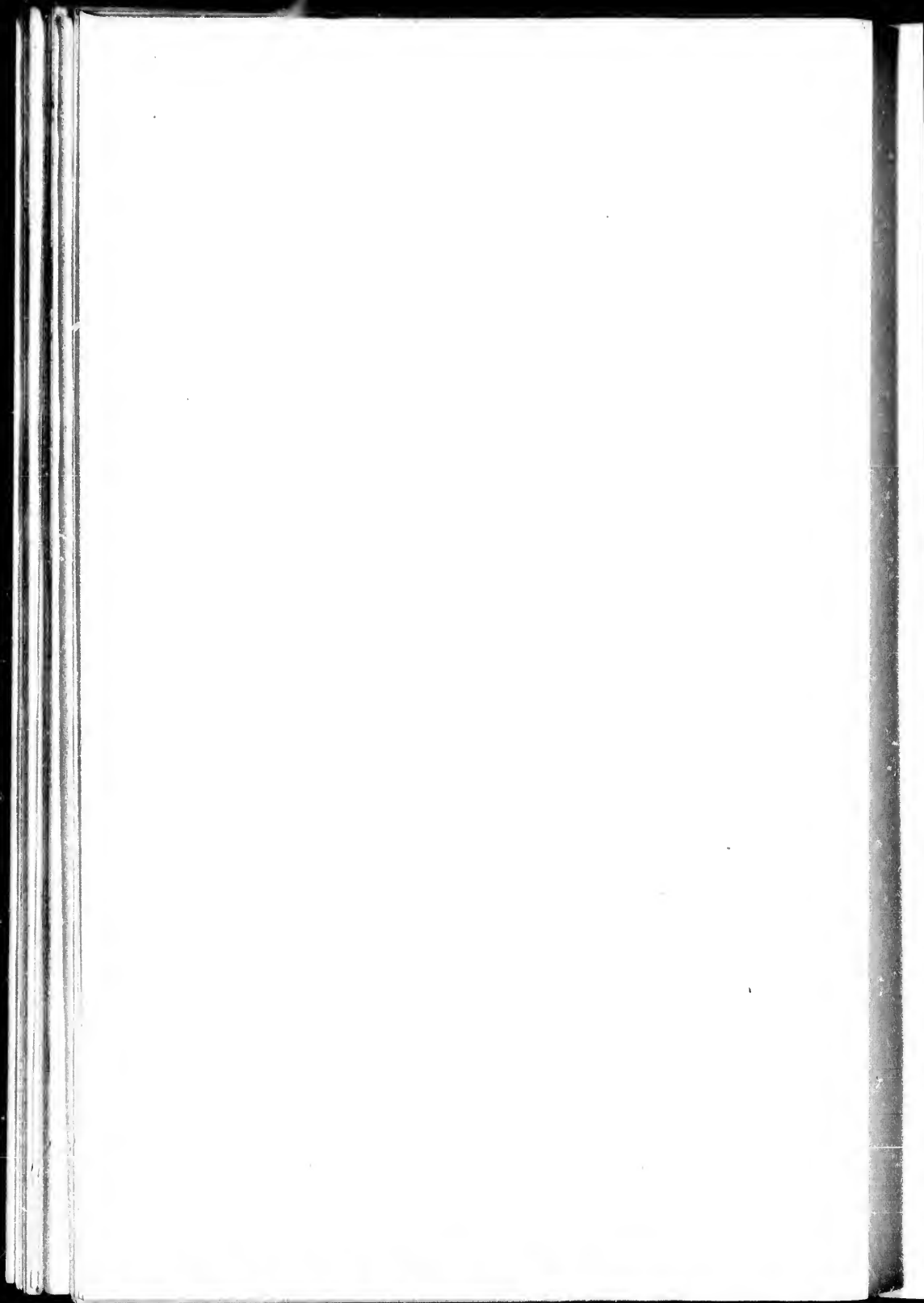
Toronto, dated 13th March, 1850.

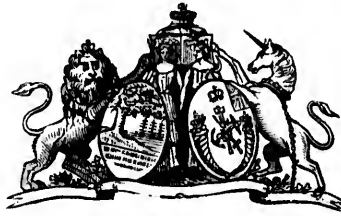
BRIEF DESCRIPTION.

The cold air is admitted from the outside of the building through a pipe passing under and through an opening in the floor into a reservoir, and thence into the stove; it passes under the fire and over and into the oven, thence out of the oven into a steam pipe connected by an elbow with the smoke pipe, which carries off all smell from the cooking. The hot air can also, by means of a hot air pipe, be used for heating an apartment simply by closing a valve or damper in the steam pipe, and opening one in the hot air pipe when there is no cooking. The top of the stove can have as now, openings for boilers or other conveniences requiring the direct action of the fire. The quantity of cold air to be admitted is regulated by a slide under the stove, and moved by a handle in front of it.

See Drawing No. 277.

ISAAC CARTER.





A. D. 1850.—(CANADA.)—No. 278.

Improved Summer and Winter Ventilating Air Stove.

LETTERS PATENT to Isaac Carter, of St. Johns, in the County of Lincoln, Pattern Maker, for the Invention of "AN IMPROVED SUMMER AND WINTER VENTILATING AIR STOVE."

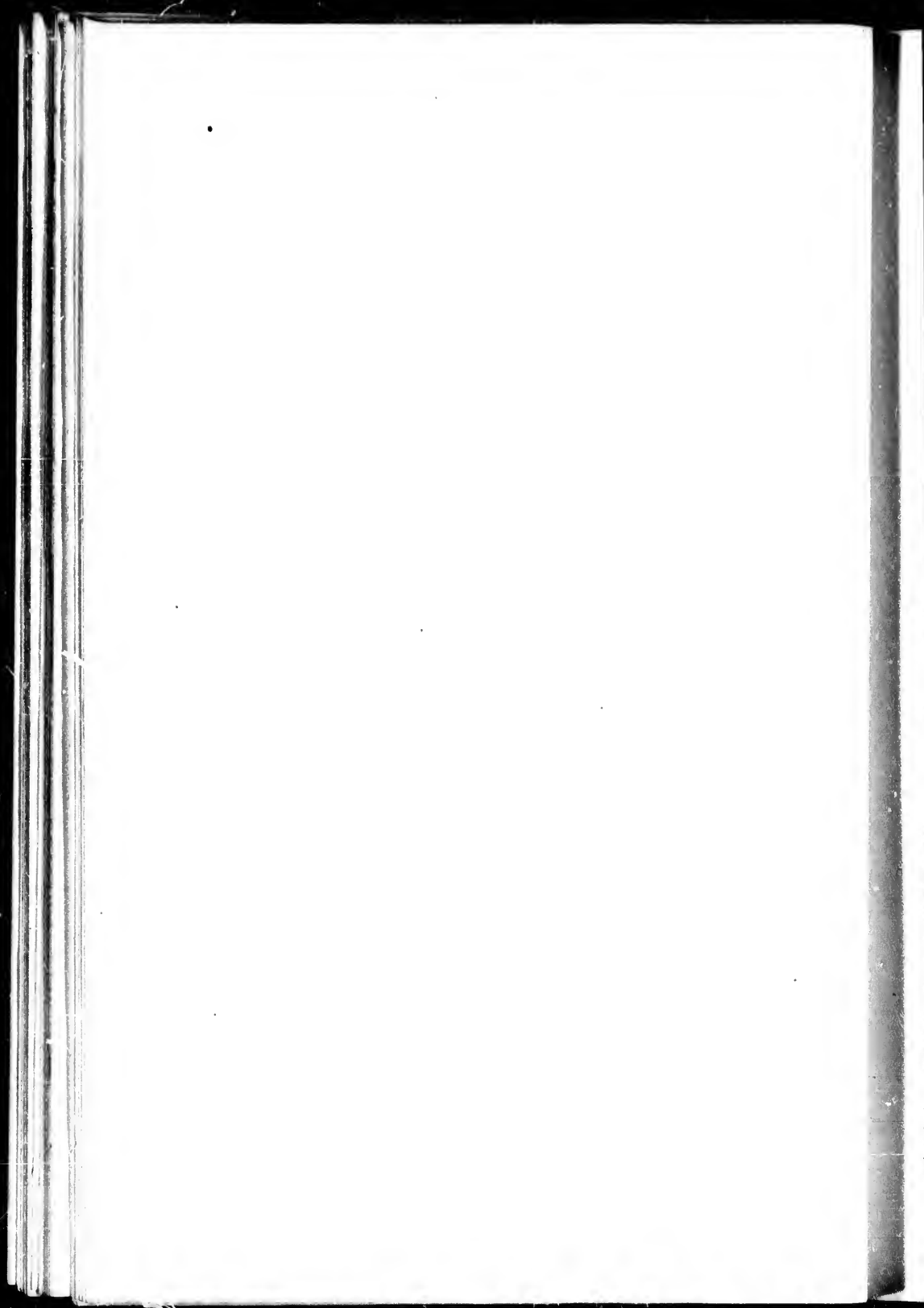
Toronto, dated 13th March, 1850.

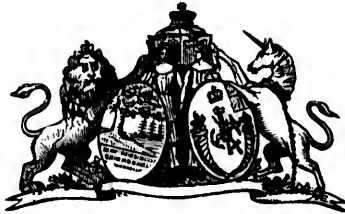
BRIEF DESCRIPTION.

It consists simply of two boxes one within the other, with a vacant space all round and between each. For winter the fire is kindled in the inner one, and heats the air admitted into the vacant space through a pipe passing under the floor from the outside of the buildings, to a trunk or reservoir situated immediately under the stove. The air after passing along the back, top, and sides of the inner or fire box, enters into a pipe at the top made large at the base and gradually diminishing upwards, from which main pipe others lead into different apartments. The smoke escapes in the usual manner. In summer the invention can be used as a ventilator by discontinuing the fire, removing the hot air pipe and substituting a check valve, by which latter the quantity of fresh cold air to be introduced into the apartment can be regulated. The quantity to be admitted from the outside into the reservoir is regulated by a slide under, and moved by a handle in front of the stove.

See Drawing No. 278.

ISAAC CARTER.





A. D. 1850.—(CANADA.)—No. 279.

*An improvement in the process of Grinding and
manufacturing wheat and other grain into Meal
and Flour.*

LETTERS PATENT to David P. Bonnell, of the Township of Sandwich, in the County of Essex, Mealman, for the invention of "AN IMPROVEMENT IN THE PROCESS OF GRINDING AND MANUFACTURING WHEAT AND OTHER GRAIN INTO MEAL AND FLOUR."

Toronto, dated 20th March, 1850.

BRIEF DESCRIPTION.

In consists in taking (after the first grinding and bolting operations in sifting the superfine flour from the ground stuffs) all the offal as it leaves the common merchant bolt or bolts, and instead of passing it through the succeeding course of bolts, as is usual, subjecting it immediately and continuously to a second grinding with a pair or set of auxiliary stones, constructed in any mode or form, which may be run at any manner of speed, (a quicker motion than is run by the main stones being preferable) by which the remaining flour in the stuffs or offal will nearly all be reduced to the same degree of fineness, as the portion previously passed through the merchant bolt or bolts. The second grinding being thus completed, the stuffs are conducted to the lower merchant bolt or bolts, or the dusters if preferred, and such portion of the flour bolted or sifted out as the miller thinks proper to send back to the cooler or first bolt or bolts, to be mixed up with the stuffs that are to be passed through the upper merchant bolt or bolts to pro-

Bonnell's improvement in manufacturing Meal and Flour.

duce superfine flour, thus saving the glutinous saccharine and most nutritious and valuable portions of the grain, and mixing them with the superfine starchy particles of the flour. The remaining stuffs that pass from the lower merchant bolt or bolts may be separated for feeds in any manner the miller may desire.

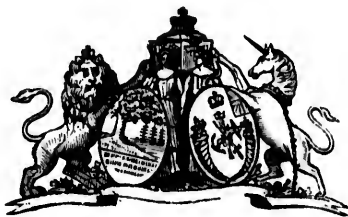
See Drawing No. 279.

DAVID P. BONNELL.

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A. D. 1850.—(CANADA.)—No. 280.

Improved Heater of Water and other Liquids.

LETTERS PATENT to Alfred Wilbur, Township of Ancaster, County of Wentworth, Yeoman, for the Invention of "AN IMPROVED HEATER OF WATER AND OTHER LIQUIDS."

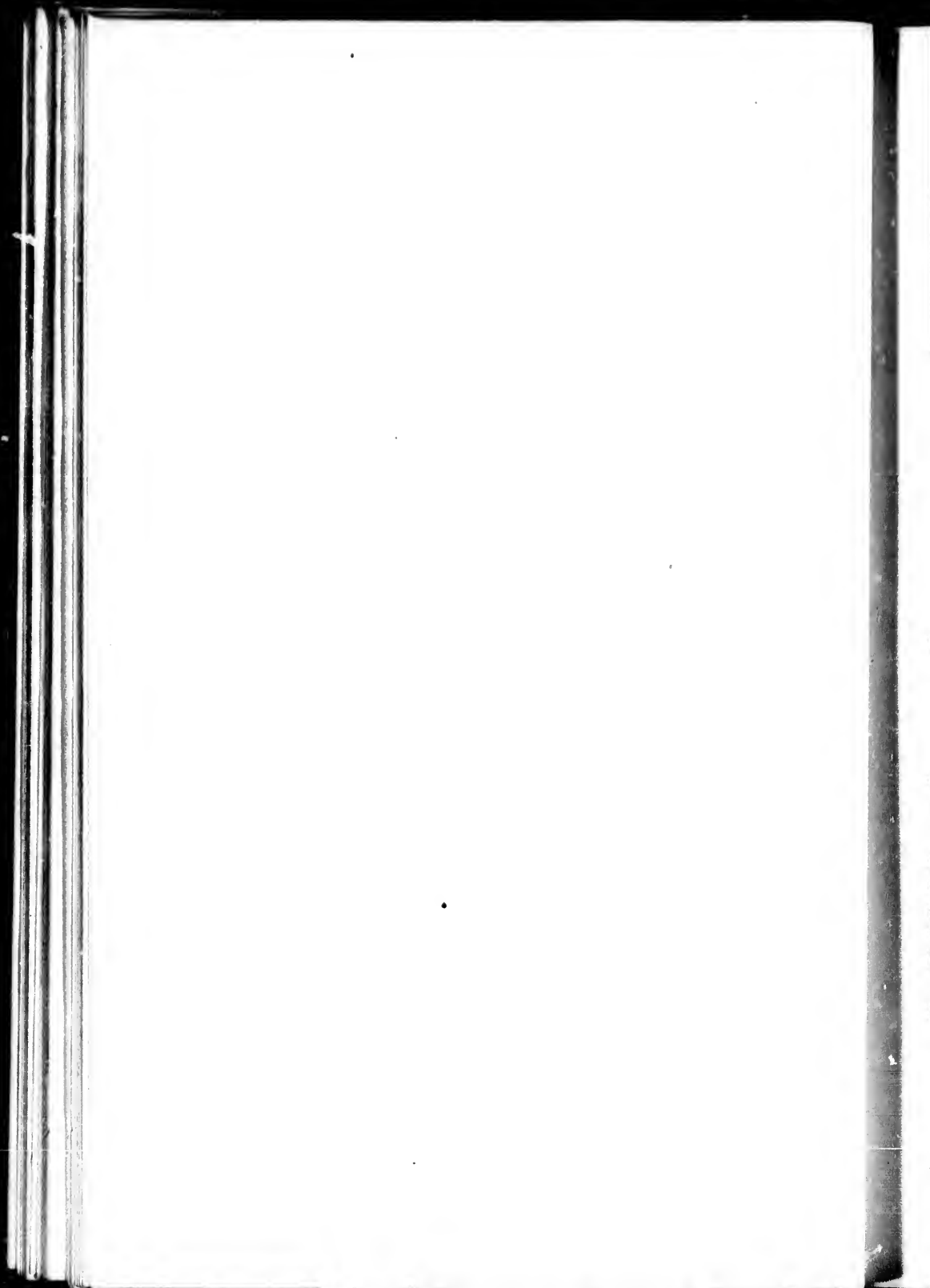
Toronto, dated 25th March, 1850.

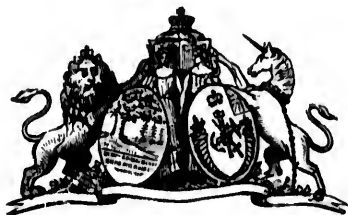
BRIEF DESCRIPTION.

A fire chamber made of copper or other malleable metal, having a grate to support the fuel, is placed in the water or liquid to be heated. The fuel is to be supplied through a pipe reaching a short distance above the water. A draught pipe having a throttle damper, leads from the bottom of the fire chamber under the grate horizontally, or turns up outside to a short distance above the water, and supplies air to the fire. The smoke is carried off from the top of the fire chamber by a pipe in the usual way. When fuel is supplied the damper is closed in the draught pipe, and a cap upon the top of the fuel pipe is taken off and afterwards replaced.

See drawing No. 280.

ALFRED WILBUR.





A. D. 1850.—(CANADA.)—No. 281.

Improvement in Cooking Stoves.

LETTERS PATENT to Alfred Wilbur, Township of Ancaster, County of Wentworth, Yeoman, for the Invention of an "IMPROVEMENT IN COOKING STOVES."

Toronto, dated 27th March, 1850.

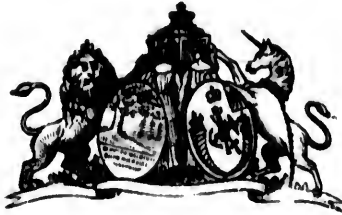
BRIEF DESCRIPTION.

The heat is radiated in a small quantity only to the room in which the stove stands, in consequence of the fire being surrounded by water. The water by being thus placed, is heated for useful purposes in the following manner: The stove has an outside case containing water which surrounds the fire chamber and oven; when the latter is not in use a damper is turned vertically, and the smoke and heat passes directly up the smoke pipe; when, on the contrary, the oven is required the damper is turned horizontally and the heat, &c., travel entirely round it. There is a steam escape pipe from the water case terminating in the smoke pipe. There are likewise cocks for drawing off the water for use, at pleasure, and also boiler holes opening over the fire place and on the top of the water case above the oven.

See Drawing No. 281.

ALFRED WILBUR.

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A. D. 1850.—(CANADA.)—No. 282.

Stump Extractor.

LETTERS PATENT to Norbert St. Onge, Parish of St. Léon, County of St. Maurice, Labourer, for the Invention of "A STUMP EXTRACTOR."

Toronto, dated 22nd March, 1850.

BRIEF DESCRIPTION.

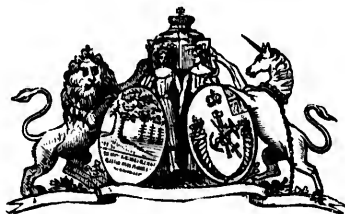
It consists of an arm or bar of timber or iron of any length, having on its upper surface a saw tooth rack of metal fixed firmly thereon. Along the bar a moveable head of wood or iron is made to slide by the action of a lever. To one end of the arm or bar, a strong staple and chain are attached for the purpose of securing the apparatus to any fixed object, as a means of resistance or counter strain; a second staple and chain are also fixed to the moveable head and fastened around the stump or obstacle to be removed. The power obtained is by a lever with a double paul fixed to the shifting head above described; and, by a motion of this lever backwards and forwards upon its fulcrum, the one paul is alternately advanced the length of a tooth, into which it becomes engaged and relieves the other paul. The pauls have springs secured to their upper sides which force them to catch securely against the teeth. Two friction rollers facilitate the movement of the sliding head against the under side of the bar. When the sliding head is advanced to the further end of the arm, by removing a spring and disengaging the pauls, the head is carried back to obtain a fresh purchase. This machine can be made either wholly of iron, or wood and iron, and

St. Onge's Stump Extractor.

of any dimensions and strength suitable for the power required. It may likewise be adopted as a lifting apparatus for purposes to which the jackscrew is usually applied.

NORBERT ST. ONGE.

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A. D. 1850.—(CANADA.)—No. 283.

Improved Obstetrical Supporter.

LETTERS PATENT to John C. Lloyd, City of Toronto, Gentleman,
for the Invention of "AN IMPROVED OBSTETRICAL SUPPORTER."

Toronto, dated 27th May, 1850.

BRIEF DESCRIPTION.

The supporter is made of straps, lace and padding, which form shoulder or back loops with billet attached to buckle on to hand loops. These last are fastened on each side of the knee, having at the upper ends curved wooden handles to afford a draft with the hands. Straps pass round the soles of the feet, secured by buckles at each side of the knee, to loops round the knees, which are attached to a belt round the middle of the body. The hand loops are also fastened to the knee loops; the middle belt passes over a padding in the back. A strap across the shoulders regulates the shoulder loops, and the pad is kept in its place by another passing down the back.

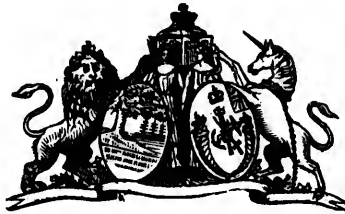
JOHN C. LLOYD.

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A. D. 1850.—(CANADA.)—No. 284.

Improvement in Fanning Mills.

LETTERS PATENT to Louis Houck, Township of Markham, County of York, Merchant, for the Invention of "AN IMPROVEMENT IN FANNING MILLS."

Toronto, dated 27th May, 1850.

BRIEF DESCRIPTION.

It consists in the introduction of a fine screen with a board underneath, for the purpose of conveying the offal of the grain to an escape for the same to the outside of the shoe; also, the relative position of screens and sieves.

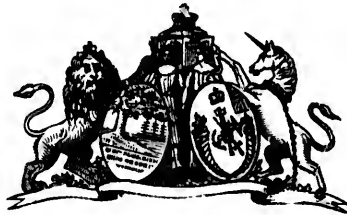
See Drawing No. 284.

LOUIS HOUCK.

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A. D. 1850.—(CANADA.)—No. 285.

New and Improved Plough or Subsoil Grubber.

LETTERS PATENT to Alexander Fleck, city of Montreal, for the
Invention of a "NEW AND IMPROVED PLOUGH OR SUBSOIL
GRUBBER."

Toronto, dated 25th May, 1850.

BRIEF DESCRIPTION.

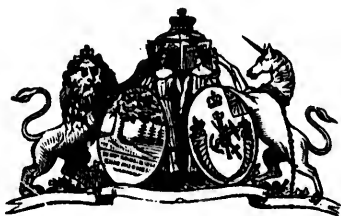
There is a horizontal or principal beam with cross bars to receive the legs, there are also cross bars to receive the outer legs. The legs are prepared with a mortise to fit in the ends of cross arms, secured by an iron wedge made moveable. There is an iron pelvis perforated with a circular hole, fitted to a spindle and secured by a pinching screw. There is also a cast iron wheel with an iron scraper to prevent the wheel from lagging. The iron arms, or handles, are secured to the beam by iron nuts and screw bolts, and other necessary apparatus. From the simple construction of said plough, the several parts are easily repaired or re-instated by the most inexperienced mechanic or labourer.

ALEXANDER FLECK.

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A. D. 1850.—(CANADA.)—No. 286.

*An Apparatus servicable as a blast regulator,
applicable to Smiths' Forges.*

LETTERS PATENT to Jacob Barnes, of the Village of Oakville, Township of Trafalgar, County of Halton, Blacksmith, for the Invention of "AN APPARATUS SERVICABLE AS A BLAST REGULATOR, APPLICABLE TO SMITHS' FORGES."

Toronto, dated 13th June, 1850.

BRIEF DESCRIPTION.

This regulator consists of a cast iron circular air box or chamber, cast in two plates, into which the blast is admitted by a tue iron connected with the fan or bellows, as the case may be. The top plate is cast with an opening at or near its centre, of an oblong form, with a valve guide plate and stops fixed underneath, and moved at pleasure by means of an iron rod attached thereto, and carried to a convenient position near the hand of the forgerman, by which means, on opening or closing the said valve, the blast emitted beneath the fire can be regulated to any desired amount. The opening for the said rod is so constructed that the sole thereof is identical with the sole of the air chamber, and is of such size as to allow of a perfect cleansing of the air chamber from such fuel or other matter as may be deposited therein through the valve opening. The said rod tunnel, when the regulator is in use, is plugged, leaving only free way for the regulating valve rod; but when the air chamber is to be cleansed, the plugging is to be removed, the valve stopped, and the blast being emitted through the

Barnes' Blast Regulator.

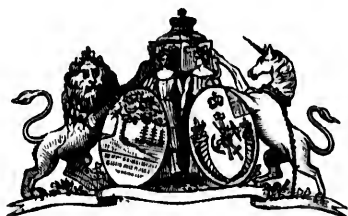
rod opening, the chamber is effectually cleared. The regulator is intended to lie beneath the forge fire, a vertical blast being thus obtained.

JACOB BARNES.

See Drawing No. 286.

regulator is
being thus

ARNES.



A. D. 1850.—(CANADA.)—No. 287.

An Improved self-protecting Bee Hive.

LETTERS PATENT to Albert Bennet, Township of Farnham,
District of Montreal, "armer, for the Invention of "AN IMPROVED
SELF-PROTECTING BEE HIVE."

Toronto, dated 12th June, 1850.

BRIEF DESCRIPTION.

The bee hive consists of a basement, sides, and door, with a swing door on the back. There is a space between the bottom plank and chamber, the chamber floor and bottom plank are grooved into the sides. The door shuts tight. The ventilators are on each side of the hive below the chamber floor and covered with fine wire gauze or perforated tin. The tube is placed in front near the bottom of the hive, the top of which must be even with the top of the bottom plank. The drone bar is a piece of tin hung at the entrance of the tube, so low as to prevent drones from entering the hive, but not from passing out. The robber box is made of plank with a glass in front, it has a hole in the back to let the robbers into the box, if occasion should require; this hole should be covered with a piece of tin fastened at one end by a screw, so that it can be made tight to prevent the robbers escaping, or it can be opened at pleasure. There are two inner hives with certain holes, one hole to correspond with front ventilator, and covered with coarse wire gauze or perforated tin. There are also two honey drawers of equal size, filling the casement chamber.

ALBERT BENNETT.

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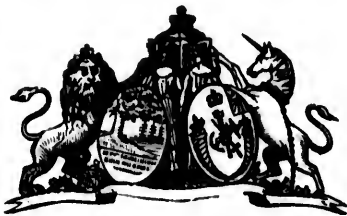
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A. D. 1850.—(CANADA.)—No. 288.

*A new method of constructing Portable Saw Mills
for sawing timber.*

LETTERS PATENT to James Trehearne, City of Toronto, Miller,
for the Invention of "A NEW METHOD OF CONSTRUCTING PORTABLE
SAW MILLS FOR SAWING TIMBER."

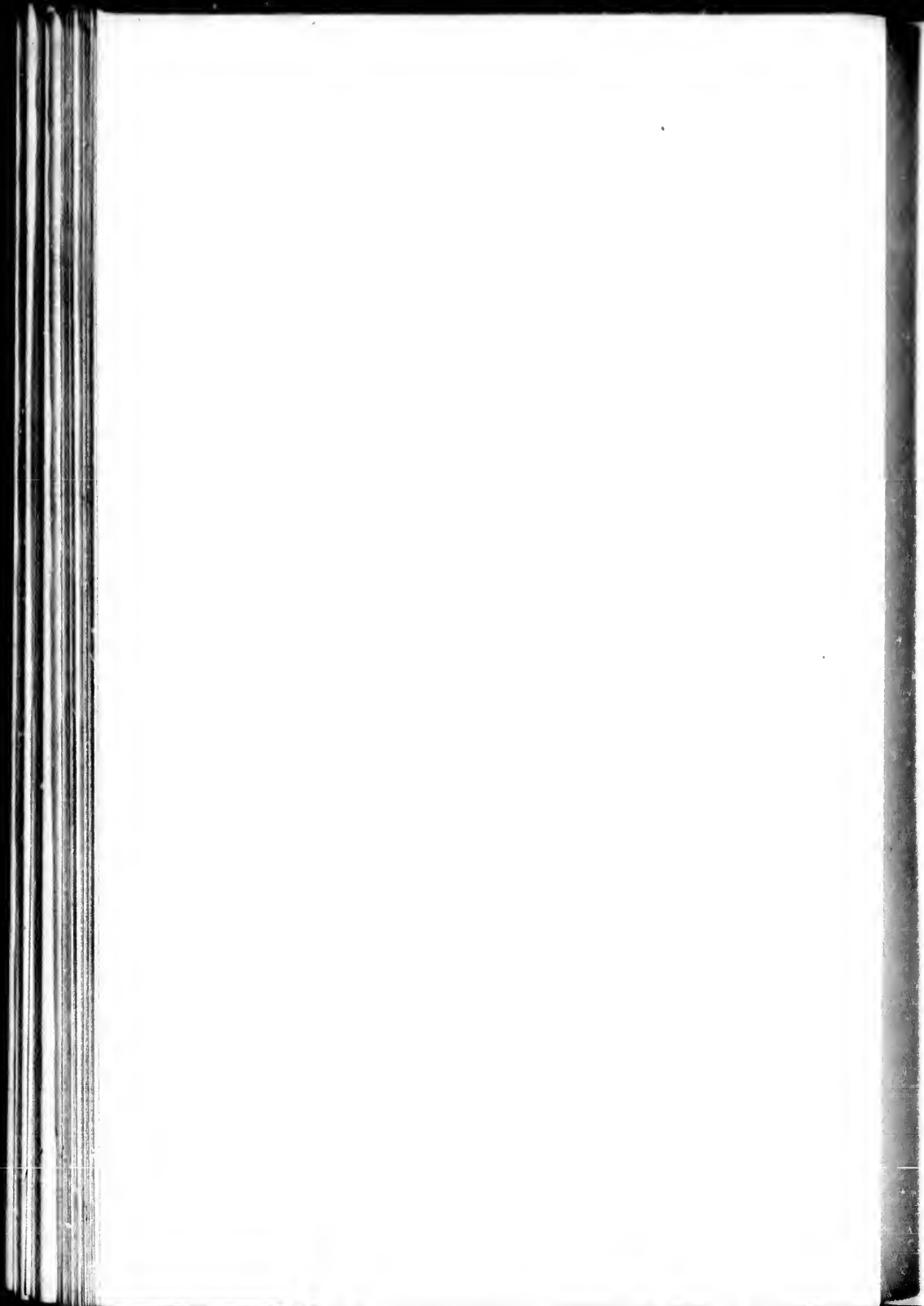
Toronto, dated 27th June, 1850.

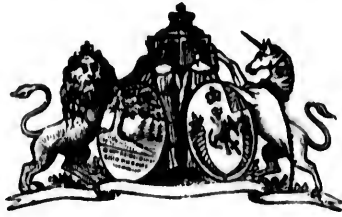
BRIEF DESCRIPTION.

The difference between the saw mills at present in use, and the one now invented is, that the latter is portable, although the working of it may be applied to stationary mills. The saw differs from those now used in stationary mills, as it does not work in the same way, but after the same manner as two men work one saw, and by applying machinery any number of saws can be worked in a similar way.

JAMES TREHEARNE.

See Drawing No. 288.





A. D. 1850.—(CANADA.)—No. 289.

New and improved Cooking Stove.

LETTERS PATENT to James R. Armstrong, city of Toronto, Iron-founder, for the Invention of a "NEW AND IMPROVED COOKING STOVE."

Toronto, dated 28th June, 1850.

BRIEF DESCRIPTION.

The bottom plate is raised where it passes under the oven, throughout the whole extent thereof, by which the superabundance of heat that is created in the centre of the oven in ordinary stoves, is diverged to the sides. A constant current of hot air is thrown into the oven by means of two pipes, one at each door, communicating with, and supplied from the fire chamber between the fire and the oven. The stove has seven apertures for boilers.

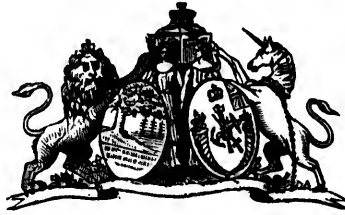
JAMES R. ARMSTRONG.

See Drawing No. 289.

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A. D. 1850.—(CANADA.)—No. 290.

Further improvement in Fanning Mills.

LETTERS PATENT to Lewis Houck, Village of Markham, County of York, Merchant, for the Invention of "A FURTHER IMPROVEMENT IN FANNING MILLS."

Toronto, dated 22nd July, 1850.

BRIEF DESCRIPTION.

The improvement consists of two fine screens for the purpose of separating the offal from grass seed; the offal passing out, and the grass seed being conveyed by conductors into a receiving box. Also in improving the relative position of the screens and sieves, as well as the application of the grass seed separator to any description of machinery for the purpose of cleaning grain.

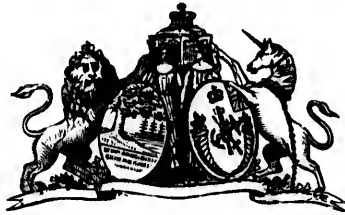
LEWIS HOUCK.

See Drawing No. 290.

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A. D. 1850.—(CANADA.)—No. 291.

Improved Stave Dresser.

LETTERS PATENT to William R. Seaver, of the city of Montreal,
Gentleman, for the Invention of "AN IMPROVED STAVE DRESSER."

Toronto, dated 2nd April, 1850.

BRIEF DESCRIPTION.

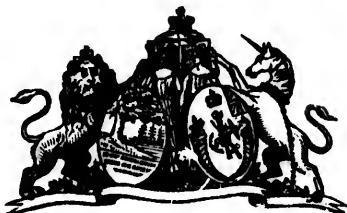
It consists in the employment of a pair of adjustable cutters through or between which the stave is passed, the said cutters being so arranged and secured in the machine, as to accommodate their action to any irregularity in the form of the stave being acted upon. It further consists in the use of a driver, having in its end a roller, the end of which is made to bear against and drive forward the stave, and will adjust itself to any twisting or irregularity in the passage of the stave between the cutters.

W. R. SEAVER.

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A. D. 1850.—(CANADA.)—No. 292.

Improved Stave Jointer.

LETTERS PATENT to William R. Seaver, of the city of Montreal,
Gentleman, for the Invention of an "IMPROVED STAVE JOINTER."

Toronto, dated 2nd April, 1850.

BRIEF DESCRIPTION.

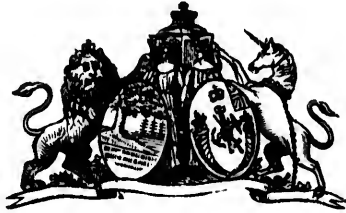
It consists in providing two planes with unequal faces and coupling the said planes together on a moveable gate, so as to set them at different angles to one another; and in operating the said planes by a reciprocating motion, to plane the joints of staves of any bulge on the edge, the one plane shaving in one direction, and the other plane shaving in the opposite direction, cutting both ways in the reciprocating motion, and also planing off the rough parts, and smoothing by the constructing of each plane. Two or more sets of planes may be operated on each frame.

W. R. SEAVER.

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A. D. 1850.—(CANADA.)—No. 293.

Manufacture of Stoves of a new pattern and principle.

LETTERS PATENT to John Counter, of the city of Kingston, Esq., assignee of Charles Tripp, under 13 and 14 Vict., for the Invention of "THE MANUFACTURE OF STOVES OF A NEW PATTERN AND PRINCIPLE."

Toronto, dated 28th August, 1850.

BRIEF DESCRIPTION.

It consists in the addition of flanges to the doors of stoves, by which means, when closed, they are rendered perfectly air tight; in the admission of cold air into the air chambers on the sides and in the centre of the stove, which, coming in contact with the heated plates, prevents their burning, and which also being at pleasure admitted into or excluded from the oven, regulates its heat or carries off vapours or steam from it into the main flue of the stove; and in the mode of attaching a summer arrangement to the front of the stove, by means of which a damper which when closed is the transit for ashes from the main stove to the ash pit, and when raised forms a flue from the summer arrangement beneath the oven into the main pipe.

See Drawing No. 293.

JOHN COUNTER.

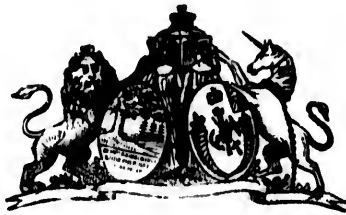
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A. D. 1850.—(CANADA.)—No. 294.

Improvement in Locomotives, and Rails for Railroads, by means of which Locomotives can be propelled along inclined planes.

LETTERS PATENT to Henry Trout of the city of Hamilton, Machinist, for the Invention of "AN IMPROVEMENT IN LOCOMOTIVES, AND RAILS FOR RAILROADS, BY MEANS OF WHICH LOCOMOTIVES CAN BE PROPELLED ALONG INCLINED PLANES."

Toronto, dated 7th October, 1850.

BRIEF DESCRIPTION.

The main rails are to be the same as those at present in use, but where an incline occurs, larger rails are to be laid down with ratchets. The ratchet rails are to be laid down from the commencement of the rise to the summit level and as far on the plain as will secure the safe landing of the entire train. The driving wheels of the Locomotives are to be the same as now used with the addition of sliding cogs with springs and flat bands. The sliding cogs or teeth are to be placed one upon each arm of the wheel, the rim of which is to be cast wider than the rim required for the plain rail, with checks or notches opposite each arm to receive the cogs. The ratchet and main rail can be cast in one piece, the former being notched with twice as many ratchets as the pitch of the wheel, that is, every cog in the wheel will strike in every alternate ratchet when the Locomotive is propelled up the inclined plane.

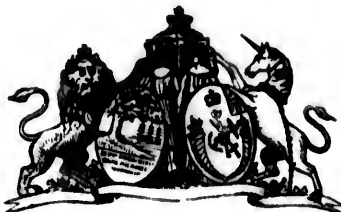
See Drawing No. 294.

HENRY TROUT.

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A. D. 1849.—(CANADA.)—No. 295.

*New and improved Tile for covering Houses and
other buildings.*

LETTERS PATENT to James Maclaran of the city of Quebec, for
the Invention of a "NEW AND IMPROVED TILE FOR COVERING
HOUSES AND OTHER BUILDING."

Toronto, 5th October, 1850.

BRIEF DESCRIPTION.

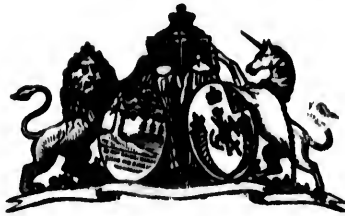
The tile is fourteen inches long, six inches wide, and half an inch thick, the surface is plain. Around three sides of the under part is a square piece one inch wide and half an inch thick, the piece on the left side projects three quarters of an inch, and has a groove in it to fit a bead which is made on the other side, by means of which the two tiles are connected. A knob, about three quarters of an inch, projects from the centre of the upper end to hang on to a strip of wood to be placed along the roof of the building; when the tiles are put together, the bead of the one drops into the groove of the next, and thus any water that may get between the tiles on its passage down the roof runs into the groove and thus passes on to the top of the next row and from thence down into the conductor.

JAMES MACLARAN.

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A. D. 1850.—(CANADA.)—No. 296.

A new and portable Grist Mill.

LETTERS PATENT to David Kidd, of the City of Montreal,
Miller, for the Invention of "A NEW AND PORTABLE GRIST
MILL."

Toronto, dated 14th October, 1850.

BRIEF DESCRIPTION.

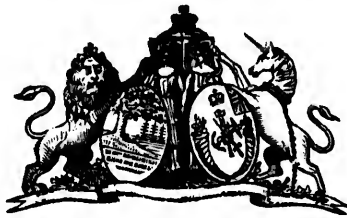
It consists in the driver or bail which is altogether new to mills of a like description and denomination ; it differs from the driver or bail now commonly in use, by confirming a connection with the spindle, so as to apply weight by pressure, termed the ball and socket or universal joint, which should be made of iron or steel, the latter is preferable however. The next thing claimed is the system of connection with the pot and spindle, for the purpose of applying weight on the stone by pressure downwards, and also the hollow socket for the pot to work in, connected with the breech tree, for the purpose of sustaining the pot or lower part of the spindle and adjusting the same, which it does ; it should be made of iron, steel, or brass, steel or iron however are to be preferred ; and lastly in the hollow damsel for the purpose of conducting oil to the neck of the spindle when it is in operation.

DAVID KIDD.

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A. D. 1850.—(CANADA.)—No. 297.

Useful improvement in the Agricultural Plough.

LETTERS PATENT to Samuel Hulbert, of the Town of Prescott,
Founder and Machinist, for the Invention of "A USEFUL
IMPROVEMENT IN THE AGRICULTURAL PLOUGH."

Toronto, dated 17th October, 1850.

BRIEF DESCRIPTION.

It consists in the peculiar form of the mould-board and point, which, after a series of trials, are found to offer the least resistance, require the least power to draw, and do the most and best work, also in the peculiar form of the cast iron beam, to which is attached the mould board point, false land side, or sole plate, and handles and notches into which the clevis catches to graduate the pitch or depth of the cut, and likewise its direction; also in the position of the coulter, which it is essential should be placed at an angle of fifty-nine degrees from the base, or thirty-one degrees from the perpendicular, to easily and effectually clear itself.

See Drawing No. 297.

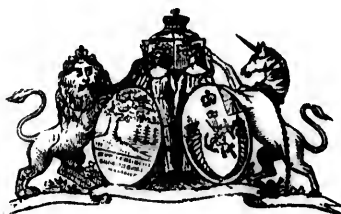
SAMUEL HULBERT.

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A. D. 1850.--(CANADA.)—No. 298.

Certain Improvements in the apparatus for warming and ventilating houses and other inhabited apartments, green houses, grain, fruit, malt drying and other kilns, and for other uses.

LETTERS PATENT to Oliver Tiffany, of the City of Hamilton, Physician, for the Invention of a "CERTAIN IMPROVEMENT IN THE APPARATUS FOR WARMING HOUSES AND OTHER INHABITED APARTMENTS, GREEN HOUSES, GRAIN, FRUIT, MALT DRYING AND OTHER KILNS, AND FOR OTHER USES."

Toronto, dated 30th October, 1850.

BRIEF DESCRIPTION.

The peculiarities of the apparatus are three, that is to say—Firstly, in the smoke pipe's oval shape, from its origin at the stove to its exit from the apparatus in connection with its position, that is to say, that it circumgyrates round the stove, and exposes its large surfaces to the air warming space, which space becomes completed into a chamber or avenue for the air's passage through by outer walls. Secondly, in a valve in combination with certain tubes for turning the whole volume of air from the route to the rooms, and letting in cool air in its stead for their ventilation, or admitting cool air in any proportion with the warm. And thirdly, for the spiracles through the sides of the fire box with their dampers, in this respect that they are in rows one above another, so that oxygenic air may be admitted at any level to the unburnt gases, according as the changing height of the surface of the fuel may make it necessary.

See Drawing No. 298.

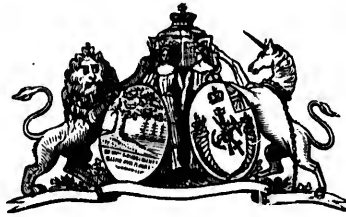
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A. D. 1850.—(CANADA.)—No. 299.

*New and useful Machine called "A Spark Killer
and Heat Retainer."*

LETTERS PATENT to Charles Midgley, of the City of Montreal,
Machinist, for the Invention of "A NEW AND USEFUL MACHINE
CALLED "A SPARK KILLER AND HEAT RETAINER."

Toronto, dated 2nd November, 1850.

BRIEF DESCRIPTION.

It is composed of a double worm or screw, of a length and size to suit convenience, made of sheet iron or other suitable material, which, being placed inside a common stove pipe or flue of a boiler, will have the effect of retaining the heat which otherwise would escape up the chimney, and of saving work and fuel to an incalculable extent; and also of extinguishing and killing the sparks which in all cases arise from such wood and fuel. It can also be applied to locomotives and thus do away with the use of the wire tops to the chimneys or funnels. A cross bar of iron or other suitable material must be placed at the end, which will extend to the outside of the boiler, where a crank will be fitted on for the purpose of turning it.

CHARLES MIDGLEY.

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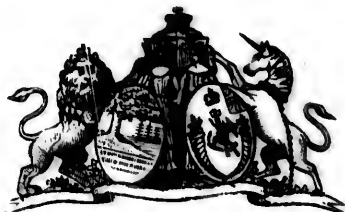
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A. D. 1850.—(CANADA.)—No. 300.

*New and improved combination of Machinery for
a Cutting Box for cutting Straw, Hay, or
Stalks.*

LETTERS PATENT to Ithamar P. Smith, of the Village of Dundas,
in the County of Halton, Machinist, for the Invention of a
“NEW AND IMPROVED COMBINATION OF MACHINERY FOR A
CUTTING BOX, FOR CUTTING STRAW, HAY, OR STALKS.”

Toronto, dated 7th December, 1850.

BRIEF DESCRIPTION.

The hay or straw to be cut is received in a wooder frame, and by the operation of two feeding rollers, it is forced forward through an adjustable throat piece, and held there till the knife comes down and cuts it. The improvement consists in the central point in the form of a V, or lance, in the cutting knife; the combined arrangement of the balance lever and the manner of applying the power of the balance wheel to the knife by the said lever; also in the adjustable throat piece with the manner of adjusting it, and likewise the check plates to receive the throat and knife gate.

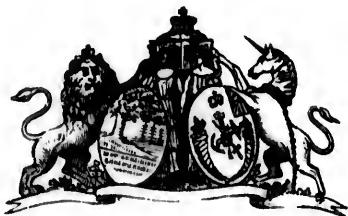
See Drawing No. 300.

ITHAMAR P. SMITH.

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A. D. 1850.—(CANADA.)—No. 301.

An Improved Plough.

LETTERS PATENT to James Hamilton, of the Town of Peterborough, Plough Maker, for the Invention of "AN IMPROVED PLOUGH."

Toronto, dated 13th December, 1850.

BRIEF DESCRIPTION.

It is made to answer the same end as a Scotch Iron Plough with the mould and sheath all in one, and land side in two parts fixed with bolts on the mould board. The Plough is to go under the name of number Six with the Patentee's name thereon.

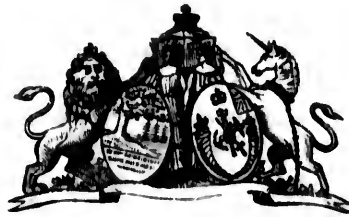
JAMES HAMILTON.

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A. D. 1850.—(CANADA.)—No 302.

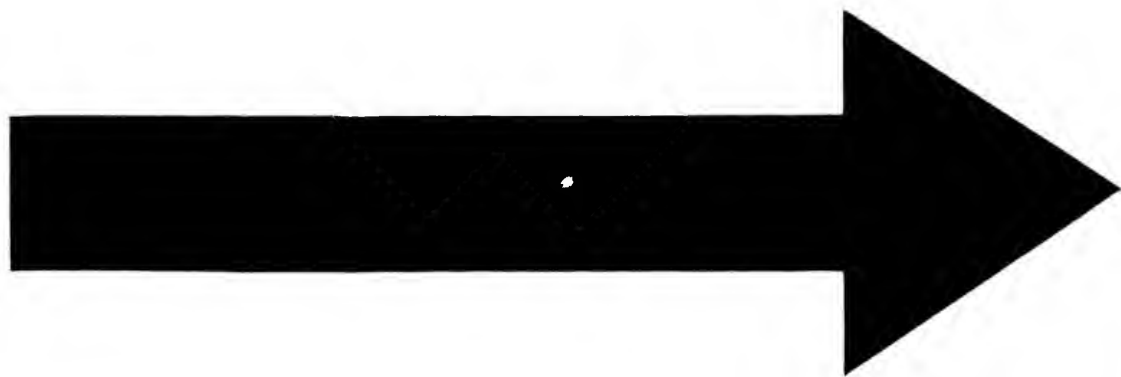
In *Machine for making Nuts and Washers.*

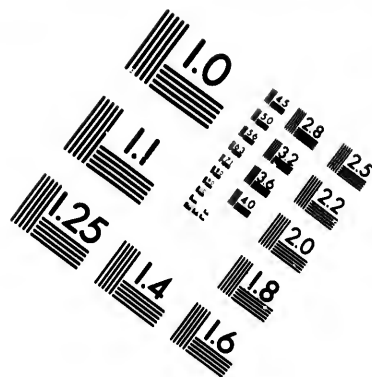
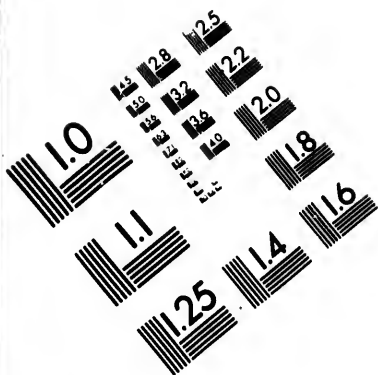
LETTERS PATENT to Daniel Matthias Lamb, of the City of Toronto, Blacksmith, for the Invention of "AN IMPROVED MACHINE FOR MAKING NUTS AND WASHERS."

Toronto, dated 28th December, 1850.

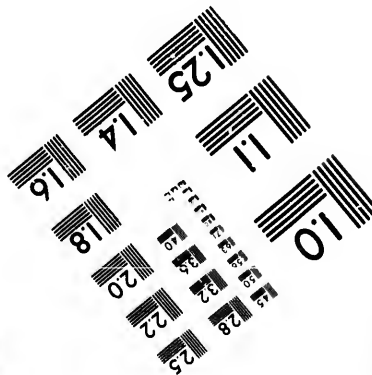
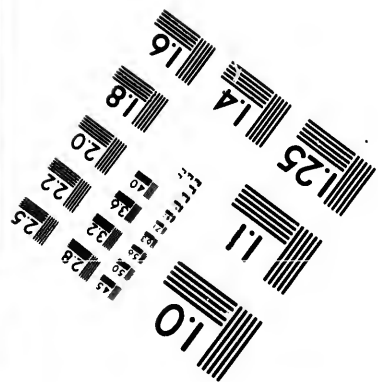
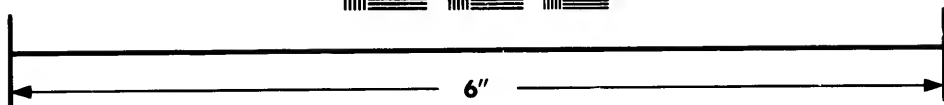
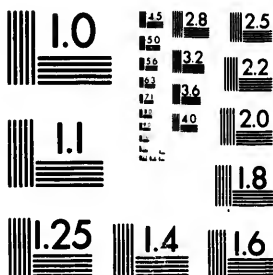
BRIEF DESCRIPTION.

A bed plate is made of iron with lugs projecting upwards to hold a crank shaft, having three cranks to which motion is communicated by a spur wheel or otherwise, as convenient. The middle crank is connected by a connecting rod to a cross-head running on ways attached to the bed plate, and a hollow punch is keyed into the cross-head. It is secured in its place by a cap under which it slides, which cap is bolted to a stud or post secured to the bed plate. The side cranks are connected by connecting rods to another cross-head into which another punch is secured. This cross-head slides in mortices between two caps and flanges or ways fast to the bed plate. The box in which the nuts or washers are made, is fastened upon studs by iron bolts. The iron from which the nuts are made is introduced at a red heat, and that for the washers cold, between a cap and the end of the box. The hollow punch cuts from the iron a piece the size of the nut or washer, and forcing it forward, it is met by the other punch, which punches a hole through it, and when the punches come nearest together the nut is compressed into a proper form between the hollow punch and a stop which is driven forward by the other punch. This





**IMAGE EVALUATION
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Lamb's Machine for making Nuts and Washers.

stop has small projections moving in grooves in the box in which the nuts are made, which allow it to slide forward with the punch, but as the punch is drawn back, the stop is arrested by the ends of the grooves, thus preventing the nut or washer from being drawn farther, while the punch is withdrawn from it, and allows it to fall clear of the machine. By another arrangement, two washers may be made at one operation, and the punches may be changed for different sizes and forms. The machine may be adapted to punching boiler plate. The punches are kept cool by a jet of cold water, and a fly-wheel to equalize the motion of the machine should be attached to the crank shaft, or to the drawing power contiguous to it.

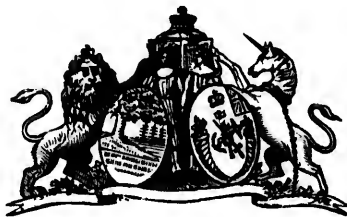
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A. D. 1850.—(CANADA.)—No. 303.

*New and Improved Pump or Apparatus for lifting
Water.*

LETTERS PATENT to Eusebe Dupont, Town of St. John's, Machi-
nist, for the Invention of "A NEW AND IMPROVED PUMP OR
APPARATUS FOR LIFTING WATER."

Toronto, dated 17th December, 1850.

BRIEF DESCRIPTION.

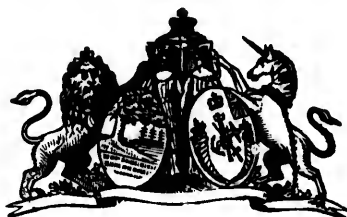
From the simple construction of the apparatus, it is not liable to be broken or put out of order. It cannot be frozen up during frost, and possesses this peculiar feature wherein it differs from the hydraulic machines, namely, that it can raise water from any depth irrespective of atmospheric pressure.

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A. D. 1851.—(CANADA.)—No. 304.

Clover Seed Gatherer.

LETTERS PATENT to William Griffin, of the Township of Brantford, Carriage maker, for the Invention of "A CLOVER SEED GATHERER."

Toronto, dated 9th January, 1851.

BRIEF DESCRIPTION.

The clover seed is collected by teeth as the machine is in motion. To a revolving axle are attached revolving fans which separate the clover heads from the stems, and deposit them in a box which is attached to the machine for retaining the clover when collected from the teeth. At each side are boxes or bearings, which contain in common the axis of the revolving fans, and are so constructed as to admit of the teeth being raised or lowered. The diameter of the fans can be expanded or contracted as required. The wheels of the machine can be thrown out of gear to stop the motion of the fans and at the same time enable the whole machine to be turned about. The machine is drawn by a horse.

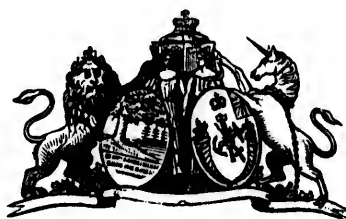
See Drawing No. 304.

WILLIAM GRIFFIN.

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A. D. 1850.—(CANADA.)—No. 305.

Improved method of making Horse Shoes.

LETTERS PATENT to Thomas Hewson McLean, of the City of Quebec, master Blacksmith and farrier, for the Invention of "AN IMPROVED METHOD OF MAKING HORSE SHOES."

Toronto, dated 9th December, 1850.

BRIEF DESCRIPTION.

The improvements consist in modifying, to an extent hitherto unattempted, the horse shoe at present in common use, so as to enable the horse's foot to descend upon the hardest road at a natural angle, and in all motions to allow the frog, by its natural elasticity, to serve the purpose for which it was intended, without, at the same time, exposing it to the injury which it would suffer by contact with our artificial roads, if it were allowed to remain completely unprotected.

THOMAS HEWSON McLEAN.

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A. D. 1851.—(CANADA.)—No. 306.

Improved method of constructing Piano Fortes.

LETTERS PATENT to George Hooper Mead, of the City of Montreal, Piano Forte maker, for the Invention of "AN IMPROVED METHOD OF CONSTRUCTING PIANO FORTES."

Toronto, dated 8th January, 1851.

BRIEF DESCRIPTION.

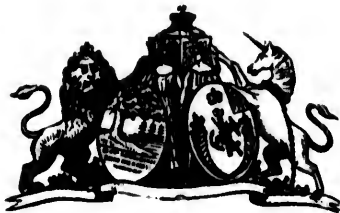
It consists of a newly invented harp frame for the piano forte, and of a newly invented suspension bridge, applicable both to horizontal and upright pianos, and also of a newly invented slow motion tuning pin connected therewith. The object of this is to give a firm and steady fixture to the strings, and an equable support and tension to the sounding board, which is here suspended by a bridge, whereby the instrument will remain much longer in perfect order and tune than by the ordinary construction; increased brilliancy and clearness are given to the tone, and the facility of accurate and delicate tuning is effectually secured.

GEORGE HOOPER MEAD.

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A. D. 1851.—(CANADA.)—No. 307.

*The Prowsonian Hot Air Cooking Range or
Furnace.*

LETTERS PATENT to George Fabes Prowse, of the City of
Montreal, Tin and Copper Smith, for the Invention of "THE
PROWSONIAN HOT AIR COOKING RANGE OR FURNACE."

Toronto, dated 7th January, 1851.

BRIEF DESCRIPTION.

The advantage of this hot air cooking range or furnace is, that while no more fuel is required than by the ordinary method of cooking, the surplus heat may be applied if required to the warming and ventilating of the building in which the same may be placed. The furnace or stove may be made of any length from two to six feet, the sides sloping inwards from above, so as to have a large heating surface at the top, which also brings the burning embers in contact with the sides. One half only of this top is used for cooking; the other half generates heat for warming and ventilating the house.

GEORGE FABES PROWSE.

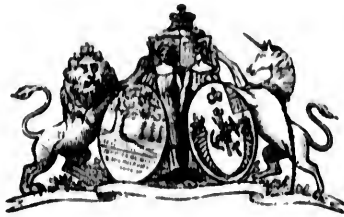
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A. D. 1851.—(CANADA.)—No. 308.

Improvement on Patent Bedstead for the sick and wounded.

LETTERS PATENT to Joseph Watson, of the Township of Norwich, in the County of Oxford, Engineer, for the Invention of "AN IMPROVEMENT ON PATENT BEDSTEAD FOR THE SICK AND WOUNDED."

Toronto, dated 31st January, 1851.

BRIEF DESCRIPTION.

The bedstead is of the usual size with high posts; within the side rails is a board or battens to serve as a seat, when the patient requires or wishes to sit up. A frame is hung with hinges to the upper edge of this seat, having rings to which cords are fastened, for raising the head and body of the patient. On the lower edge of the seat is hung another board with rings, which being lowered by cords serves to immerse the legs of the patient in a bath or otherwise. On the top of the bedstead is a strong tester frame in which are rollers or wheels for the cords to work in. These cords pass along the tester frame downwards and under the bedstead to a roller placed under the side rails and are worked by a crank. The mattress is made in three parts, but connected or fastened together so as to form a seat or couch, having a hole in the centre for the purpose of placing under it a chamber utensil. When the patient requires raising up, for making the bed, or otherwise, a frame is placed under, which is raised by cords fastened to rings and hooks and carried through the tester frame as before.

JOSEPH WATSON.

See Drawing No. 308.

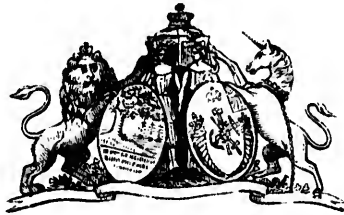
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A. D. 1851.—(CANADA.)—No. 309.

Improvement in Engine Pumps and Fire Engines.

LETTERS PATENT to John Hearle, of the Village of Galt, in the County of Halton, Pump maker, for the Invention of "AN IMPROVEMENT IN ENGINE PUMPS AND FIRE ENGINES."

Toronto, dated 31st January, 1851.

BRIEF DESCRIPTION.

The cylinder of the pump, or engine, is made in two parts, of copper or other metal. In the lower part is a bottom valve for admitting the water, and also a pipe for its passage into the air chamber. A conical leather with a plunger screwed to the piston rod is fixed between the flanges of the two parts of the cylinder, and made air tight by screw bolts or nails. When the leather is drawn up and reversed, the water follows, and fills the cylinder as high as the flanges, and the downward motion forces it through the pipe leading to the air vessel; the leathers are cut circular, to any size, and are raised by a plug or die of metal, or hard wood, being forced down by a screw or lever.

See Drawing No. 309.

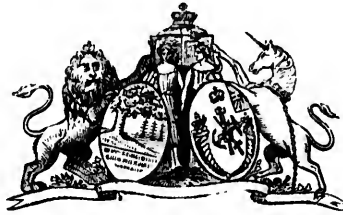
JOHN HEARLE.

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A. D. 1851.—(CANADA.)—No. 310.

*A new and useful composition to be used as a soap
for the saving of labor in washing clothes.*

LETTERS PATENT to John Darling, of the Township of Yarmouth,
in the County of Middlesex, Gentleman, for the Invention of
“A NEW AND USEFUL COMPOSITION TO BE USED AS A SOAP FOR
THE SAVING OF LABOR IN WASHING CLOTHES.”

Toronto, dated 31st January, 1851.

BRIEF DESCRIPTION.

The ingredients are as follows, that is to say; one pint of pure alcohol, half a pint of spirits of turpentine, one and a half ounce of pure ammonia, half an ounce of camphor gum, and one ounce of resin, which quantity is sufficient to mix and be incorporated with forty pounds of common bar soap, in the following manner:—The soap to be melted, and the said ingredients introduced and stirred until quite amalgamated, or the ingredients may be kept in a bottle tightly corked. When using, take three table spoonfulls of the same to one pint of soft soap, add five gallons of water, and make thereof suds, the water being as warm as the hand will bear; or the suds may be made by incorporating with the said ingredients one pound of hard soap, and dissolving the same in about twelve gallons of water, of the temperature before mentioned.

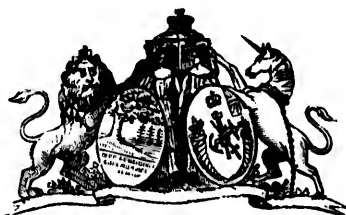
JOHN DARLING.

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A. D. 1851.—(CANADA.)—No. 311.

A machine called a Ventilating Stove and the means by which the ventilating air may be made to circulate under a floor and between the joists.

LETTERS PATENT to Henry Ruttan, of the Town of Cobourg, Esquire., for the Invention of "A MACHINE CALLED A VENTILATING STOVE AND THE MEANS BY WHICH THE VENTILATING AIR MAY BE MADE TO CIRCULATE UNDER A FLOOR AND BETWEEN THE JOISTS."

See Drawing No. 311.

Toronto, 31st January, 1851.

Surrendered, and a new Patent issued, 29th November, 1858.

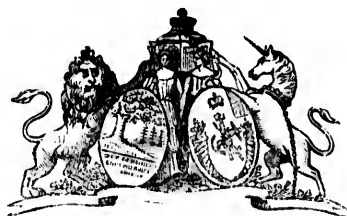
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A. D. 1851.—(CANADA.)—No. 312.

*Several important improvements in Cooking Stoves,
and in the method of applying and using heat
for cooking purposes.*

LETTERS PATENT to James Kent Griffin, of the Village of Waterdown, in the County of Halton, for the Invention of "SEVERAL IMPORTANT IMPROVEMENTS IN COOKING STOVES, AND IN THE METHOD OF APPLYING AND USING HEAT FOR COOKING PURPOSES."

Toronto, 13th March, 1851.

BRIEF DESCRIPTION.

Firstly, there is a rising and falling grate worked by levers under the hearth, by which the size of the fire place may be altered at pleasure, whether the fire is burning or not. Secondly, there is an ash grate immediately under the fire, by means of which the ashes are at once lifted into a moveable ash pan and the grate cleaned at pleasure. Thirdly, the oven is surrounded on all sides by fire. Fourthly, the oven can be cleaned directly into the ash pan. Fifthly, by means of a water gate to lie on the bottom of the oven, steam is diffused through it, and the heat more completely equalized. Sixthly, the heat is regulated by means of the expansion of a brass rod pressing an iron one against a compound lever which opens a damper. Seventhly, the oven is on a new plan and is a steam one—and eighthly, the front doors are provided with circular dampers so arranged as to allow the draft to be altered at any time.

See Drawing No. 312.

JAMES KENT GRIFFIN.

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A. D. 1851.—(CANADA.)—No. 313.

New kind of Plough.

LETTERS PATENT to William Holton, of the Township of East Tilbury, in the County of Kent, Yeoman, for the Invention of
"A NEW KIND OF PLOUGH."

Toronto, dated 15th March, 1851.

BRIEF DESCRIPTION.

It consists in the mould board being perfectly straight, instead of rounding, as in all other ploughs, thereby causing it to require much less draught, and turn a furrow much better than the common sort now in use.

See Drawing No. 313.

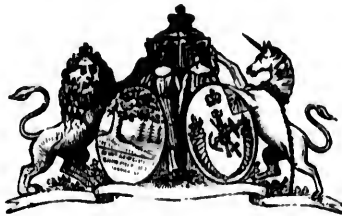
WILLIAM HOLTON.

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A. D. 1851.—(CANADA.)—No. 314.

*Machines called a Rouser and a Bran Washer,
to be used in the manufacture of starch.*

LETTERS PATENT to John Angell Cull, of the City of Toronto,
Starch maker, for the Invention of "CERTAIN MACHINES CALLED
A ROUSER AND A BRAN WASHER TO BE USED IN THE MANUFAC-
TURE OF STARCH."

Toronto, dated 17th March, 1851.

BRIEF DESCRIPTION.

The rouser consists of a moveable bar or beam fitting loosely in an upright shaft, so as to be raised or lowered at pleasure; this is made to revolve rapidly in the vats, when partly filled with water and starch, and thereby to create a violent agitation, causing the starch to be rapidly mixed with, or disseminated through the water, and also helping to clean and purify it. The bran washer is very similar to the rake of an ordinary flour cooling machine, but made to revolve on a perforated surface or floor. Above the rake are hollow arms perforated with holes and stretching out over the floor; these arms when filled with water sprinkle the bran, and wash all the starch out of it, through the perforated floor. The white water resulting from this is used afterwards in diluting the crushed or ground grain. The action of the branwasher is to cause the bran to be moved from the centre to the circumference, or *vice versa*, as it may be made to revolve either way.

JOHN ANGELL CULL.

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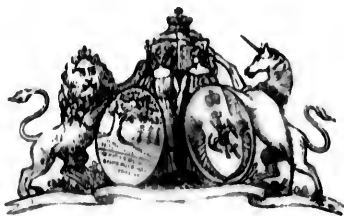
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A. D. 1851.—(CANADA.)—No. 315.

*Certain improvements in the method of making
Starch.*

LETTERS PATENT to John Angell Cull, of the City of Toronto,
Starch maker, for the Invention of "CERTAIN IMPROVEMENTS IN
THE METHOD OF MAKING STARCH."

Toronto, dated 17th March, 1851.

BRIEF DESCRIPTION.

After the water, containing the mashed or ground grain or flour, has arrived at a sufficiently soluble state, and has been strained through a sieve to separate it from the bran, the starch is deposited from the water, while in motion, over a series of floors or troughs having a regular system of falls of a few inches from one to the other, instead of its being allowed to settle in vats or tubs when the water containing it is left at rest, as heretofore.

See Drawing No. 315.

JOHN ANGELL CULL.

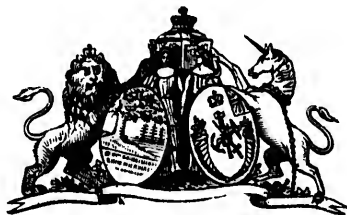
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A. D. 1851.—(CANADA.)—No. 316.

*New kind of Suspension Truss, to be applied in
constructing Bridges and Roofs.*

LETTERS PATENT to John Kiely, of the Town of London, in the
County of Middlesex, Carpenter, for the Invention of "A NEW
KIND OF SUSPENSION TRUSS TO BE APPLIED IN CONSTRUCTING
BRIDGES AND ROOFS.

Toronto, dated 22nd March, 1851.

BRIEF DESCRIPTION.

The truss is an open built beam composed of three chords, the two lower ones form arcs of two circles of different radii, between which is a series of diagonal bracing; one half of each brace bears on the top and bottom surfaces of the chords, the other half forms an abutment to the next brace and at each intermediate section of diagonal bracing there is a perpendicular bolt passing through the chords, which produces a compression of the braces, and these last bearing on the smooth surfaces of the said chords produce a reciprocal action on each other. The chords approaching each other at the ends, are secured by means of a solid block inserted between them, scarfed and bolted; and the truss is secured from longitudinal thurst by a wire rope connecting its extremities.

See Drawing No. 316.

JOHN KIELY.

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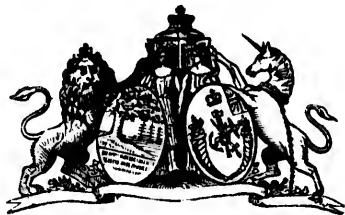
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A. D. 1851.—(CANADA.)—No. 317.

New and useful improvement upon the Plough.

LETTERS PATENT to Archibald John Thomson, of the Town of Woodstock, in the County of Oxford, Founder, for the Invention of "A NEW AND USEFUL IMPROVEMENT UPON THE PLOUGH."

Toronto, dated 24th March, 1851.

BRIEF DESCRIPTION.

The difference between this improvement and the ploughs in common use, consists in its having a duplex or double land side.

See Drawing No. 317.

ARCHIBALD JOHN THOMSON.

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A. D. 1851.—(CANADA.)—No. 318.

New and useful improvement in the method of applying the heat generated in the stoves or fire places for the purpose of warming apartments or houses.

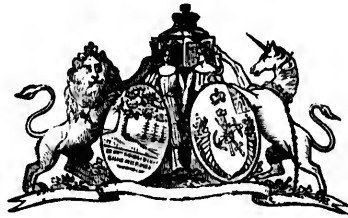
LETTERS PATENT to William John Holmes, of the City of Montreal, tin smith and trader, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE METHOD OF APPLYING THE HEAT GENERATED IN STOVES OR FIRE PLACES FOR THE PURPOSE OF WARMING APARTMENTS OR HOUSES."

Toronto, dated 12th April, 1851.

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A. D. 1851.—(CANADA.)—No. 319.

Rabbeted revolving air and water-tight Joint.

LETTERS PATENT to Thomas S. Fox, of the City of Montreal, Gentleman, for the Invention of "A RABBETED REVOLVING AIR AND WATER TIGHT JOINT."

Tor. nto, dated 12th April, 1851.

BRIEF DESCRIPTION.

This joint is applicable to various purposes where such air tight joint is required. The application of it in the present instance is to a pair of English sliding sashes. The sash frame is made in the usual way, with pulley stiles and casings to form a hollow box for the reception of the sash weights. Between the beads of the pulley stiles are introduced four pulley pieces, grooved at the back, in the usual way, to receive the sash lines, and at the front rabbeted in such a peculiar way as to form the air-tight joint. The outside edges of each sash still are rabbeted in the same peculiar manner to fit close into the rabbets of the pulley pieces, and then attached together by means of brass or iron hinges, and when closed and in a vertical position, they will slide up and down in the usual way of English sashes, and are perfectly air and water tight. In wet weather for ventilation they can be opened by pushing out the bottom of each sash at pleasure to an angle of any number of degrees, say, from ten to forty. In sultry weather, for the admission of air through the whole area of the window frame, the sashes are to be opened at right angles and pushed up as high as the sash head will admit. For the purpose of cleaning the glass, repairing or painting the sashes, they

Fox's Rabbeted air and water-tight Joint.

are to be revolved quite round to a vertical position, so that the exterior face of the window will be brought to face the interior of the building, and this can be done without the use of a ladder or of a second person. In fact this window is well calculated for every description of building, whether public or private, as also for conservatories, steamboats, &c.

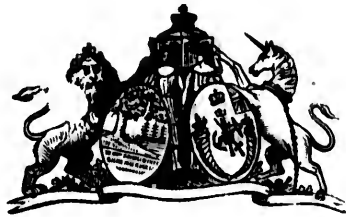
THOMAS S. FOX.

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A. D. 1851.—(CANADA.)—No. 320.

*A new and improved Cooking Stove to be called the
Giant Cooking Stove.*

LETTERS PATENT to James Rogers Armstrong, of the City of
Toronto, Ironfounder, for the Invention of "A NEW AND IMPROVED
COOKING STOVE, TO BE CALLED THE GIANT COOKING STOVE."

Toronto, dated 17th April, 1851.

BRIEF DESCRIPTION.

The bottom plate is made of the same width to the rear of the fire-place, then it diminishes and rises in a nearly perpendicular direction to form the back of the fire-place, afterwards it turns with a half circle, and is extended to the rear of the stove, leaving an equal space between it and the top of the plate, except at a recess immediately under the oven. The front of the bottom plate extends in front of the fire-place, and has a recess for broiling purposes and an extra raised hearth plate with holes for boilers, to be used as required. The heat is regulated by a sliding damper. In the oven bottom are two holes for boilers. The oven is directly in the rear, and is elevated above the stove. It is heated by two pipes in each back corner, which pipes pass round on the inside and communicate with the general smoke pipe. The oven door is at the back. The recess in the bottom plate under the oven has a door at the side, and forms a fire chamber, and the oven can be heated independently of the fire in front, and being lined with tin, becomes a hot air oven, and causes a great saving of fuel, besides being a comfort to the cook, as very little heat would be

Armstrong's Giant Cooking Stove.

created in the kitchen. It may indeed be called a cooking stove itself as it is capable of boiling as well as baking.

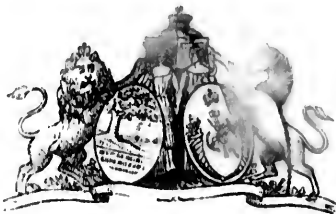
See Drawing No. 320.

JAMES ROGERS ARMSTRONG.

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A. D. 1851.—(CANADA.)—No. 321.

Self-acting Ribbed warp Knitting Loom.

LETTERS PATENT to John Rourke, of the City of Montreal, Knitter, for the Invention of a "SELF-ACTING RIBBED WARP KNITTING LOOM."

Toronto, dated 1st May, 1851.

BRIEF DESCRIPTION.

This invention consists of a self-acting rib warp knitting loom, having two guide bars acting by cams on the main shaft, the guide bars traversing backwards and forwards by the action of level gears, attached to an upright shaft, worked from the main shaft, and passing through the needles by a connecting rod worked by a cam on the main shaft, the needle bars being attached to the plungers or lifters, the front needle bar lifting the back sliding plate, and the back needle bar the front sliding plate, the needle bars having alternate action and the work being taken over by the sliding plates, whereby the knitted work is produced much stronger, of better quality, and more rapidly than by the ordinary hand loom, being made from a warp and not from a single thread as in the usual mode.

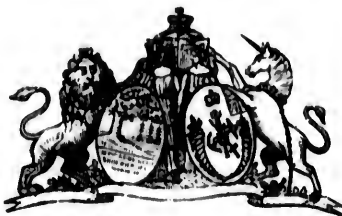
JOHN ROURKE.

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A. D. 1851.—(CANADA.)—No. 322.

*New and improved method of cutting Hay, Straw,
Chaff, or other vegetable food for Cattle.*

LETTERS PATENT to Daniel Mandigo, of St. Johns, in the district of Montreal, Machinist and Contractor, for the Invention of "A NEW AND IMPROVED METHOD OF CUTTING HAY, STRAW, CHAFF, OR OTHER VEGETABLE FOOD FOR CATTLE."

Toronto, dated 2nd May, 1851.

BRIEF DESCRIPTION.

It is an improved method of cutting hay, straw, chaff, or other vegetable food for cattle or other purposes, effected by means of two cylinders furnished with blades or cutters disposed spirally along their length, and by making the said cylinders revolve in contrary directions by the action of the cog wheels, and bringing their cutting edges in close contact with a fixed knife which is adjusted by screws. By the spiral motion of the blades or cutters, the hay, or other substance to be cut, is drawn towards them, obviating the necessity of other machinery for the purpose of supplying the cutters.

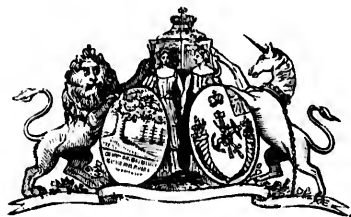
DANIEL MANDIGO.

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A. D. 1851.—(CANADA.)—No. 323.

Cross Cutting Machine.

LETTERS PATENT to Chester Shattuck, of the Township of Durham, for the Invention of "A CROSS CUTTING MACHINE."

Toronto, dated 21st May, 1851.

BRIEF DESCRIPTION

It may be made of any kind of hard wood, of any dimensions and of any capacity. The wood to be sawed is steadied in the frame by dogs. The machine is moved by a crank, turned either by hand, horse, or steam power, which communicates with an iron driving shaft connected by a band to driving fly and pulley wheels, and the motion is communicated to a saw set in a horizontal sliding gate, and fixed in a sinking vertical frame.

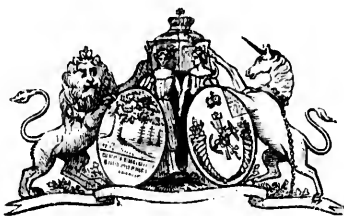
See Drawing, No. 323.

CHESTER SHATTUCK.

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A. D. 1851.—(CANADA.)—No. 324.

New Shape of Bar Iron for Horse Shoes.

LETTERS PATENT to Thomas Hewson McLean, of the City of Quebec, master Blacksmith and Farrier, for the Invention of "A NEW SHAPE OF BAR IRON FOR HORSE SHOES."

Toronto, dated 1st May, 1851.

BRIEF DESCRIPTION.

It consists in an alteration and alterations of variety in the shape of the bars of malleable iron, commonly called "horse shoe iron," or in other words the invention of a new shape and shapes, into which the iron is caused to be originally rolled or hammered, so that the bar shall be more peculiarly adapted for conversion and manufacture into horse shoes, whether of the ordinary description, or those for which the petitioner has already obtained a patent.

THOMAS HEWSON McLEAN.

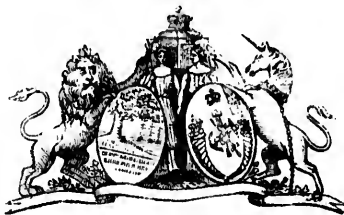
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A. D. 1851.—(CANADA.)—No. 325.

New mode of constructing a Cider Mill and Press.

LETTERS PATENT to John Hare McKenzie, of the Township of Mariposa, in the County of Peterboro', Wheelwright, for the Invention of "A NEW MODE OF CONSTRUCTING A CIDER MILL AND PRESS."

Toronto, dated 16th June, 1851.

BRIEF DESCRIPTION.

The apples are thrown into a hopper, from thence they run down to a feeder, where there is a regulator which allows them, one row at a time, to fall into the mill. A cylinder, the speed of which is regulated by a fly-wheel, is fixed therein and set round with teeth, which works against a concave surface, having points, spikes, or teeth, projecting so as to catch the apples and retain them until scraped completely away by the teeth of the cylinder, and reduced to a pulp; the pulp then falls through a shoot into the press, and the juice is pressed out by a screw and is received into vessels placed beneath under a spout.

See Drawing No. 325.

JOHN HARE MCKENZIE.

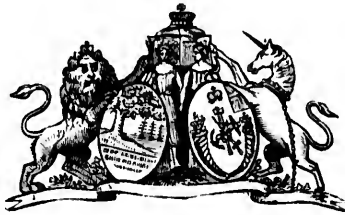
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A. D. 1851.—(CANADA.)—No. 326.

Improved Iron Stove for heating rooms, and other purposes.

LETTERS PATENT to Sherman S. Jewett, of the City of Toronto,
Iron Founder, for the Invention of "AN IMPROVED IRON STOVE
FOR HEATING ROOMS, AND OTHER PURPOSES.

Toronto, dated 16th June, 1851.

BRIEF DESCRIPTION.

The front or end plates of the stove or grate are constructed with recesses in their jambs, closed in front by doors, which recesses are of sufficient capacity to receive the doors of the fire-place, which, when opened, are turned back into them, and are concealed from view by shutting the doors of the recesses.

See Drawing No. 326.

SHERMAN S. JEWETT.

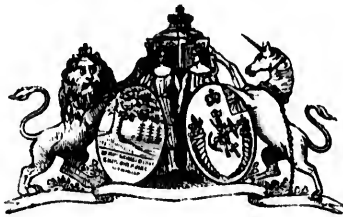
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A. D. 1851.—(CANADA.)—No. 327.

*New and useful machine for cutting and sawing
staves with unprecedented rapidity and correct-
ness.*

LETTERS PATENT to Edwin Jenney, of the Township of Sandwich,
in the County of Essex, Cooper, for the Invention of "A NEW
AND USEFUL MACHINE FOR CUTTING AND SAWING STAVES WITH
UNPRECEDENTED RAPIDITY AND CORRECTNESS."

Toronto, dated 16th June, 1851.

BRIEF DESCRIPTION.

A cylinder saw and shaft are attached to a head and rest upon bearings at each end of the saw frame. The saw is nearly surrounded by a double circle or band, connected by bolts, between the sides of which rollers are fixed bearing on the outside of the saw, and guiding it in a true circle whilst in operation. The rollers are raised or lowered by screws. The timber is taken to the saw by a moveable carriage and the saw runs towards it.

See Drawing No. 327.

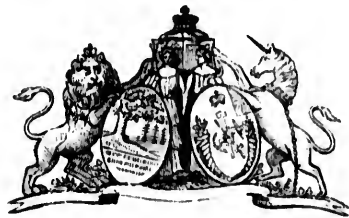
EDWIN JENNEY.

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A. D. 1851.—(CANADA.)—No. 328.

New and useful machine for separating and cleaning wheat and other grain.

LETTERS PATENT to Roswell Tompkins Merrill, of the Township of Sandwich, in the County of Essex, Machinist, for the Invention of "A NEW AND USEFUL MACHINE FOR SEPARATING AND CLEANING WHEAT AND OTHER GRAIN."

Toronto, 16th June, 1851.

BRIEF DESCRIPTION.

The improvement consists, firstly—of an endless elevator of peculiar construction, placed between the threshing cylinder and the ordinary fanning and riddling machinery, consisting of a series of double troughs, the ends of which are attached to two endless straps or belts, which pass over rollers for the purpose of elevating the grain from the thresher to a position to be acted upon by the blast, and which troughs are so placed as to prevent the grain from falling through between the cells. Secondly—of a preliminary fan wheel and wind channel, furnished with a regulating plate valve, by means of which the grain is more thoroughly separated from the straw and cleansed from chaff and dust. The wheel is enclosed in a cylindrical casing in connection with the wind channel. One edge of the plate valve is attached to an axle rod, and the other is moveable and adjustable to regulate the blast required, its position being governed by a bent lever,

Merrill's Machine for Cleaning Grain.

the central part of which passes through the side of the wind channel, near and parallel to the end of the axle rod, and through the casing of the cylinder.

See Drawing No. 328.

ROSWELL TOMPKINS MERRILL.

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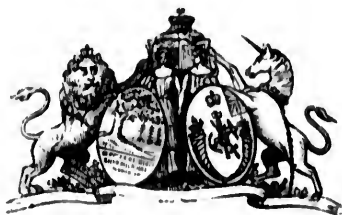
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A. D. 1851.—(CANADA.)—No. 329.

New and improved Cooking Stove, to be called the Salamander Cooking Stove.

LETTERS PATENT to Thomas J. Fuller, of the City of Toronto, Merchant, for the Invention of "A NEW AND IMPROVED COOKING STOVE TO BE CALLED 'THE SALAMANDER COOKING STOVE.'"

Toronto, dated 18th June, 1851.

BRIEF DESCRIPTION.

The fire chamber and body of the stove are so constructed as to throw the heat upon the boiler and oven, and prevent its being diffused and escaping before performing the service desired. The hearth has a double swinging top, and the chamber, or bosom thereof, has sufficient depth to receive a coal grate, and a gridiron over it for broiling. The top is swung to and closed during the process, and the smoke and fumes are carried into the body of the stove, and pass off into the chimney. The back plate of the fire chamber is an independent plate, and shuts into the main back plate of the stove with a rabbet or groove, leaving space for expansion and contraction, and enabling it to be easily replaced by a new one when burnt out. The oven is elevated above the stove, and has a double case, with holes for boilers and smoke pipe, and the top plate of the stove which covers the fire chambers has openings likewise.

See Drawing No. 329.

THOMAS J. FULLER.

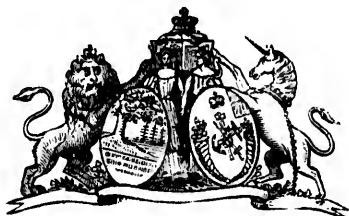
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A. D. 1851.—(CANADA.)—No. 330.

*New and improved Plough, called a Double Iron
Beam Plough.*

LETTERS PATENT to Charles Lemon, of the Township of Augusta,
in the County of Grenville, Founder, for the Invention of "A
NEW AND IMPROVED PLOUGH CALLED 'A DOUBLE IRON BEAM
PLOUGH.'"

Toronto, dated 24th June, 1851.

BRIEF DESCRIPTION.

The beam is composed of two wrought iron bars, of the same shape and size, placed side by side, with a space between them, which varies at different parts, and fastened together by bolts. The clevis or muzzle is made as follows: a piece of cast iron of the same depth as the beam, with a hole through it, is placed between the bars, a short distance from the end, and a bolt passes through and secures it; outside each bar are two side plates of iron through which the bolt likewise passes. The projecting ends of the side plates and bars have holes in them through which another bolt passes and three spaces are thus formed in which the hook of the plough can be placed. The clevis or muzzle is raised or lowered by means of either a double or single beam, having a vertical motion on the standard of the plough as a pivot, and its position fixed by clamp bolts on the handle. The coulter is fixed to the double beam and standard by means of a key and clasps, and bolts through them.

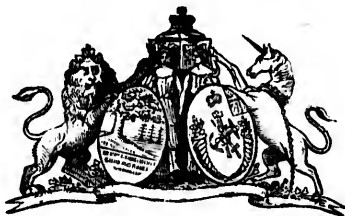
See Drawing No. 330.

CHARLES LEMON.

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A. D. 1851.—(CANADA.)—No. 331.

Improved Weighing Machine.

LETTERS PATENT to Calvin Palmer Ladd, of the City of Montreal,
Machinist and trader, for the Invention of "AN IMPROVED
WEIGHING MACHINE."

Toronto, dated 30th June, 1851.

BRIEF DESCRIPTION.

A combination with the lever and knife edge bearings of the loops,
the two vertical or nearly vertical projections or knife edges, as
arranged with respect to the loops and lever, together with a strength-
ening rod substantially placed on the underside of the levers.

CALVIN PALMER LADD.

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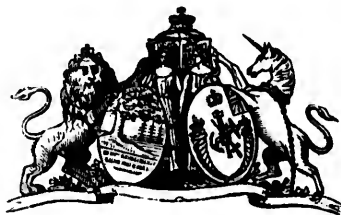
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A. D. 1851.—(CANADA.)—No. 332.

Shingle Making Machine.

LETTERS PATENT to George Hawley, of the Township of Eaton,
in the District of St. Francis, for the Invention of "A SHINGLE
MAKING MACHINE."

Toronto, dated 4th July, 1851.

BRIEF DESCRIPTION.

It consists of a power machine for rifting, shaving, and jointing
shingles, and is composed wholly of iron, steel, and wood, whereby the
amount of labour is much diminished.

See Drawing No. 332.

GEORGE HAWLEY.

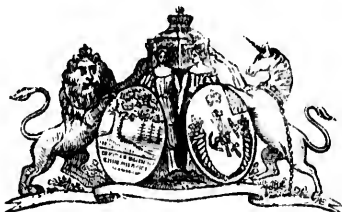
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A. D. 1851.—(CANADA.)—No. 333.

Certain improvements in the construction of Agricultural Ploughs.

LETTERS PATENT to Henry Markle, of the Township of Flam-
borough East, in the County of Halton, Carpenter, for the
Invention of "CERTAIN IMPROVEMENTS IN THE CONSTRUCTION
OF AGRICULTURAL PLOUGHS."

Toronto, dated 12th July, 1851.

BRIEF DESCRIPTION.

The distance from the point of the plough share to the stem of the plough is considerably shorter than that of any other plough, whereby it runs more steadily through the ground, and the distance from the said stem to the farthest extremity of the mould board is considerably larger than in any other plough. The mould board is also made with a peculiar curve or twist, of such a nature that in working, the sod or soil turned over is laid close and evenly as the plough passes along without being broken. The share may be made of wrought or cast iron, and with or without a cutter of same material.

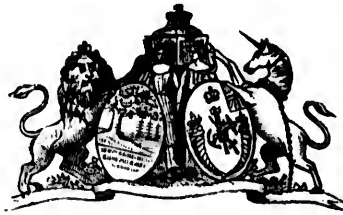
HENRY MARKLE.

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A. D. 1851.—(CANADA.)—No. 334.

*New method of running the Perpendicular Saw for
Sawing Timber.*

LETTERS PATENT to James Trehearne, of Port Dover, in the Township of Woodhouse, and County of Norfolk, Miller, for the Invention of "A NEW METHOD OF RUNNING THE PERPENDICULAR SAW FOR SAWING TIMBER."

Toronto, dated 24th August, 1851.

BRIEF DESCRIPTION.

A frame, to which brackets are attached, is securely bolted upon the frame or carriage of the portable saw mill, formerly patented by the said James Trehearne, to which this invention is claimed as an improvement. Guides, secured to the brackets, are continued before the cutting edge of the saw, and are moved by means of screws to bring the saw in a straight line with the log carriage. The saw is attached to cross heads, the top one is double, and the saw is inserted between the pieces. The ends are solid, one working in the front guides and the other in a back groove. The lower cross head works upon square guides, placed in advance of the cutting edge of the saw, which is firmly bolted to it, and one end of a lever is also attached which has a crank at the other end to give the required stroke to the saw. There is likewise a sliding frame which can be raised or depressed according to the thickness of the log, and on the lower part of which are guides to prevent the saw from bending or twisting. Mills now in use may be worked by the old pitman instead of the lever. This

Trehearne's Perpendicular Saw.

invention consists chiefly in hanging the saw in advance of its cutting edge, and in using the lever. The saw requires to be in a true line with the log carriage of the mill, and the log, advancing against the cutting edge, causes the saw to act upon the guides, with a strain sufficient to make it complete its work and run true.

See Drawing No. 334.

JAMES TREHEARNE.

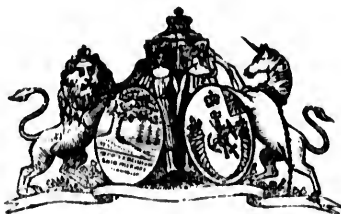
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A. D. 1851.—(CANADA.)—No. 335.

Cooking Stove, the hot air from which is applied to heating purposes.

LETTERS PATENT to Isaac Carter, of the Town of St. Catherines, in the County of Lincoln, Pattern maker, for the Invention of "A COOKING STOVE, THE HOT AIR FROM WHICH IS APPLIED TO HEATING PURPOSES."

Toronto, dated 21st August, 1851.

BRIEF DESCRIPTION.

This stove, when placed for use, has the cold air admitted from the outside of the building, or otherwise from the room where the stove is placed, through a trunk or pipe, and conveyed directly into a chamber or receiver, under the stove; it then passes up at the back of the fire, and over the top of the oven, and is then admitted through holes in the back, into the oven, from whence it passes through a valve into the smoke flue, and carries off all offensive smell from the cooking. The continual stream of heated air is conducted through a pipe, and opening a similar one into a hot air pipe whereby rooms may be heated, however remote their distance from where the stove is placed.

See Drawing No. 335.

ISAAC CARTER.

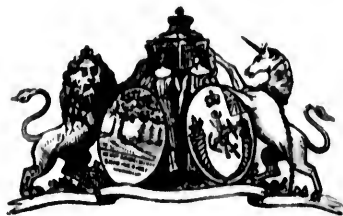
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A. D. 1851 --(CANADA.)—No. 336.

New and improved method of constructing Cooking Stoves, as exemplified in what he calls the Brockville air-tight Cooking Stove.

LETTERS PATENT to Reuben Powers Colton, of Brockville, in the County of Leeds, Iron Founder, for the Invention of "A NEW AND IMPROVED METHOD OF CONSTRUCTING COOKING STOVES, AS EXEMPLIFIED IN WHAT HE CALLS THE BROCKVILLE AIR TIGHT COOKING STOVE."

Toronto, dated 8th September, 1851.

BRIEF DESCRIPTION.

The fire box and ash pit are larger than in stoves now in common use. The hot air is admitted through an aperture in the bottom plate of the stove, and passing through a flue which rests upon the centre of the bottom plate, is in direct contact with the fire; it enters an air chamber formed by the bottom plate of the oven, and the top plate of the stove, and from thence it is conducted thoroughly heated into the oven. The outside plates are ornamented with a raised figure pattern, and the particular and entire arrangements of this stove afford greater convenience than those now in common use.

See Drawing No. 336.

REUBEN POWERS COLTON.

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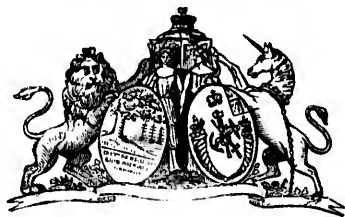
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A. D. 1851.—(CANADA.)—No. 337.

*New and improved Whirlpool Wheel, or pressure
water power.*

LETTERS PATENT to Benjamin Fuller, of the Township of Town-
send, in the County of Norfolk, Waggon Maker, for the Invention
of "A NEW AND IMPROVED WHIRLPOOL WHEEL, OR PRESSURE
WATER POWER."

Quebec, dated 6th November, 1851.

BRIEF DESCRIPTION.

Little or no head of water being required to drive the machinery, the large expenditure in the constructing of dams is saved. The wheel is horizontal, and the water flows through two conductors upon the buckets, the quantity being varied at pleasure. A shaft passes through the centre of the wheel and communicates with the machinery, which is turned by water power. The water is kept in its place by slants or guards, and is prevented from escaping at the sides of, or before striking the buckets, by rims and flanges. The sides of the conductors project to keep the water from spreading; they rest upon platforms; and a part is made to take out, should the wheel require repairing. The water is discharged at the bottom of the buckets in a counter way from its striking at the top, thereby leaving no back water.

See Drawing No. 337.

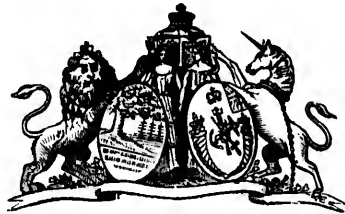
BENJAMIN FULLER.

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A. D. 1851.—(CANADA.)—No. 338.

The Excelsior Cylindrical Thresher, also a new and useful machine for driving the above, or for any other suitable purpose, called "The Excelsior Horse Power."

LETTERS PATENT to Thomas J. Fuller, of the City of Toronto, Merchant, for the Invention of "THE EXCELSIOR CYLINDRICAL THRESHER," ALSO A NEW AND USEFUL MACHINE FOR DRIVING THE ABOVE, OR FOR ANY OTHER SUITABLE PURPOSE, CALLED 'THE EXCELSIOR HORSE POWER.'

Quebec, dated 6th November, 1851.

BRIEF DESCRIPTION.

It consists firstly, of a cylinder, wrought or cast, composed of sectional plates, or of any other similar form, for threshing grain, or any other useful purpose. Secondly, of the combination of wrought or cast iron cylinder, composed of beaters or otherwise revolving over or under a concave bed of iron bars, for the purpose of threshing grain or any other useful purpose. Thirdly, of sliding boxes whereby the distances for threshing different sizes of grain is regulated. Fourthly, of the combinations of wheels for horse power, the driving wheel acting upon two pinions, they acting upon two secondary wheels, both of which act upon one pinion, which pinion carries shaft and band wheel on either end of the perpendicular main shaft. And fifthly, a hollow stem whereby a shaft is formed for the main wheel,

Fuller's Excelsior Horse Power.

and a journal formed for the centre shaft to revolve in, thus answering two distinct purposes.

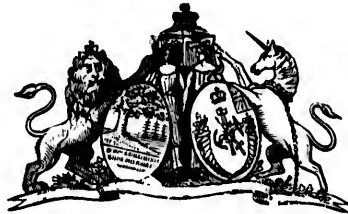
See Drawing No. 338.

THOMAS J. FULLER.

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A. D. 1851.—(CANADA.)—No. 339.

*Circular, and Straight Moulding, Rabbeting,
Ploughing, and Architrave Machine.*

LETTERS PATENT to William Coleman, of the City of Toronto,
Carpenter and Joiner, for the Invention of "A CIRCULAR AND
STRAIGHT MOULDING, RABBETING, PLOUGHING AND ARCHITRAVE
MACHINE."

Quebec, dated 6th November, 1851.

BRIEF DESCRIPTION.

This machine has a main cutting cylinder with setting screws and feeding shafts, also a spindle and another cutting cylinder with step and guage screw, and feeding pulley and shaft. There is a bed piece for circular work, with sweep guages, and endless feeding chain, and guides and tightening rollers. There is likewise a main driving drum, with feeding pulley and guides, and stationary jointers, and the machine is intended to stick mouldings of every description and size, from the smallest used in joiner work, to the large cornice mouldings, circular or straight, rabbeting of every form, ploughing of the face under side and both edges if required, and also to sink stick returned bead, rabbet and joint architraves, and skirting of every description, making from the rough state a complete finish by once passing through it.

See Drawing No. 339.

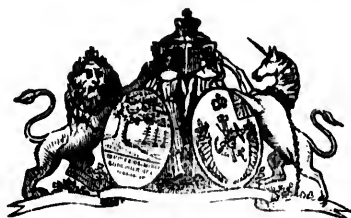
WILLIAM COLEMAN.

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A. D. 1851 —(CANADA.)—No. 340.

*New and important machine for the manufacture
of Laths.*

LETTERS PATENT to Peter Rothwell Lamb, of the City of Toronto,
Grocer, for the Invention of "A NEW AND IMPORTANT MACHINE
FOR THE MANUFACTURE OF LATHS."

Quebec, dated 6th November, 1851.

BRIEF DESCRIPTION.

To put the machine in motion, power is applied to a driving pulley, with a wheel at each end of its spindle; one, communicating with that part of the machine connected with a moving table on which slabs of saw logs are laid and cut into lath boards, the other communicating with that part to which the machinery is attached for cutting the laths themselves. The table with the slab is moved forwards and backwards by a series of wheels, connected together by revolving bands or belts, and the lath boards are made to slide by similar means. The lath boards pass between cylindrical wheels, and are carried forward, without further aid, by the attendant, after being laid on the table and their ends introduced. They are carried by a revolving belt under, and raise up a grooved wheel, and a spring connected with the spindle thereof causes a ratchet to move round one notch. The wheel contains one hundred notches, and a bell fastened to its axis strikes when one hundred laths have passed through.

PETER ROTHWELL LAMB.

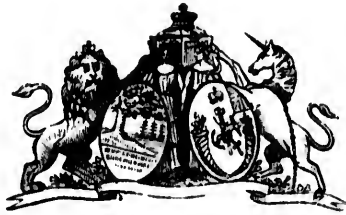
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A. D. 1851.—(CANADA.)—No. 341.

*New and important machine for cutting Hay or
Straw.*

LETTERS PATENT to Peter Row Higley, of Oshawa, in the County
of York, Gentleman, for the Invention of "A NEW AND IMPROVED
MACHINE FOR CUTTING HAY OR STRAW."

Quebec, dated 6th November, 1851.

BRIEF DESCRIPTION.

The motive power commences with a crank moving a spur wheel, which works into a pinion of a fly-wheel, and which communicates motion to a crank; to this is attached a pitman, thereby conveying motion to a pendulum lever, which vibrates on its axis, by which movement two pitmen attached thereto acquire contrary motions, the one moving up while the other is moving downwards. These pitmen are again connected with two gates, one being immediately behind the other, in which knives are affixed. These gates with the knives move upwards and downwards in slides, thereby causing the edges of the knives, one being straight and the other serrated, to move in reverse directions, approaching, meeting, and passing each other, thus cutting completely asunder any substance such as hay or straw that may be placed between their edges, and then receding until they resume their original position, an upright lever bar at the same time giving motion so as to forward the hay and straw between the knives.

See Drawing No. 341.

PETER ROW HIGLEY.

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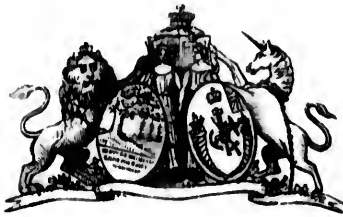
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A. D. 1851.—(CANADA.)—No. 342.

New method of constructing Carriages and other vehicles, by which they are enabled to turn in much less space than formerly.

LETTERS PATENT to Thomas Mills, of the City of Toronto, Coach Builder, for the Invention of "A NEW METHOD OF CONSTRUCTING CARRIAGES AND OTHER VEHICLES BY WHICH THEY ARE ENABLED TO TURN IN MUCH LESS SPACE THAN FORMERLY."

Quebec, dated 25th November, 1851.

BRIEF DESCRIPTION.

Instead of the king bolt passing as usual through the axletree, it can be inserted in the couplings at certain receding distances, which are regulated by a scale of measurement of the carriage itself shewing what room it will require to turn in. The perch which receives the springs has a circular bolster which traverses a circular transom bed. A small flange projects in front of the bolster, and clips the convex edge of the transom bed or plate, and the bolster is prevented from proceeding too far by flanges left at each extremity of the transom bed.

See Drawing No 342.

THOMAS MILLS.

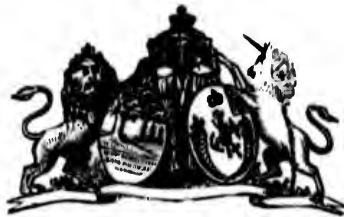
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A. D. 1852.—(CANADA.)—No. 343.

*Improved mode of making Bricks and Architectural
Ornaments.*

LETTERS PATENT to James Maclaren, of the City of Quebec,
Burgess, for the Invention of "AN IMPROVED MODE OF MAKING
BRICKS AND ARCHITECTURAL ORNAMENTS."

Quebec, dated 8th January, 1852.

BRIEF DESCRIPTION.

The plain solid brick is made the usual size, and it may be glazed on one side. The ornamented brick is made of different sizes, ornamented on the face. The hollow brick is made of various sizes according to the description of work to be done, two sides of this brick are glazed, the outer side to resist moisture, and the inner side to imitate paint or marbled paper.

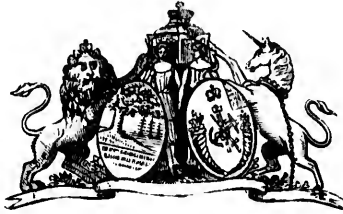
See Drawing No. 343.

THOMAS MACLAREN.

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A. D. 1852.—(CANADA.)—No. 344.

Improved Furnace.

LETTERS PATENT to Joseph Pagnuelo, of the City of Montreal,
Tin and Copper Smith, for the Invention of "AN IMPROVED
FURNACE."

Quebec, dated 8th January, 1852.

BRIEF DESCRIPTION.

It consists in the peculiar construction of the furnace, having the grate bars hollow, and by having the sides of the furnace provided with air chambers or pipes, increasing by these means the available heating power of the fuel.

JOSEPH PAGNUELO.

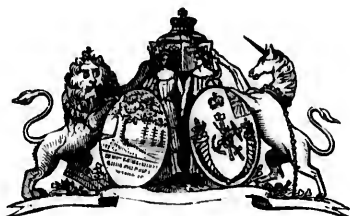
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A. D. 1852.—(CANADA.)—No. 345.

*New and useful improvement in the construction of
Waggons, combining the springs and coupling.*

LETTERS PATENT to Nevens Jones, of the Village of Stewartstown, in the Township of Esquesing, in the County of Halton, Joiner, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF WAGGONS COMBINING THE SPRINGS AND COUPLING."

Quebec, dated 19th January, 1852.

BRIEF DESCRIPTION.

The combined springs and coupling consist of four bars, two of them running from or near the shoulders of the hind axle tree, and fastening at the front and underneath the box; and the other two running from the centre of the fore axle tree to each corner of the box behind. A bar is placed across the bottom of the box in or near the centre, to which the rods or bars are clasped by claws inserted therein, and by which the height of the carriage box is regulated.

See Drawing No. 345.

NEVENS JONES.

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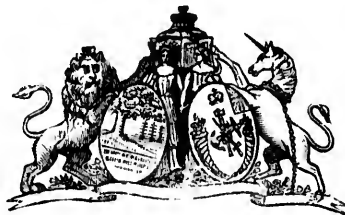
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A. D. 1852.—(CANADA.)—No. 346.

Certain improvements to a machine called a Grain Separator, for the purpose of cleaning grain and separating it from the straw and chaff.

LETTERS PATENT to Alexander Anderson, of Markham, in the County of York, Carpenter, for the Invention of "CERTAIN IMPROVEMENTS TO A MACHINE CALLED A GRAIN SEPARATOR, FOR THE PURPOSE OF CLEANING GRAIN AND SEPARATING IT FROM THE STRAW AND CHAFF."

Quebec, dated 19th January, 1852.

BRIEF DESCRIPTION.

The improvements consist of two hoppers attached beneath the separating sieve, for conveying the grain and chaff into the hopper of the fanning mill, placed underneath so as to receive the same. The sides of the straw conveyor are deepened and levelled. There is a slide for discharging the straw out of the barn, the sieve is enlarged, a receiver is added, and the motion, action, and relative speed of the separator and fanning mill are regulated by certain proportions between the different pulleys and the position and length of the bearing chains, upon which the whole apparatus swings.

See Drawing No. 346.

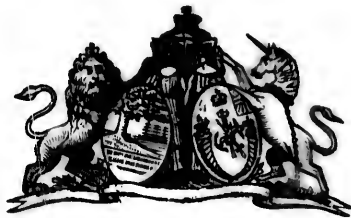
ALEXANDER ANDERSON.

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A. D. 1852.—(CANADA.)—No. 347.

New and useful plan for Building Houses.

LETTERS PATENT to James Anderson of the Township of Blenheim, in the County of Oxford, Yeoman, for the Invention of
"A NEW AND USEFUL PLAN FOR BUILDING HOUSES."

Quebec, dated 19th January, 1852.

BRIEF DESCRIPTION.

The timber required is to be cut into lengths according to the thickness of walls or pillars, and split into flat pieces, then laid in layers obliquely in a horizontal position, each layer being reversed, and between each putting mortar and making the outer and inner edges perfectly smooth and plumb. Partitions may be made in the same way. The roof is made by taking boards tongued and grooved, on them put a coat of paint mixed with glue; before the paint is dry place a coat of plaster of Paris over the boards, the plaster being first boiled.

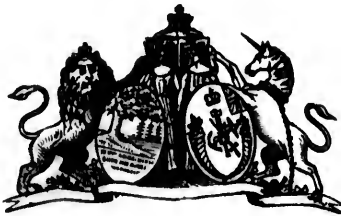
See Drawing No. 347.

JAMES ANDERSON.

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A. D. 1852.—(CANADA.)—No. 348.

Improved Threshing Mill.

LETTERS PATENT to Thomas Nicol, and Prudent Nicol, of the Parish of St. Thomas, in the District of Quebec, Blacksmiths, for the Invention of "AN IMPROVED THRESHING MILL."

Quebec, dated 14th January, 1852.

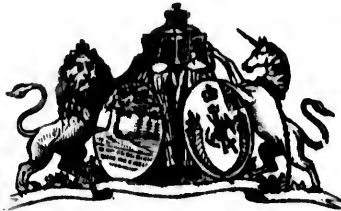
BRIEF DESCRIPTION.

In order to reduce the too great friction in threshing mills moved by manual labour, and to diminish the unnecessary fatigue to the persons working them, the Patentees by this invention, in the place of two wheels, a wooden drum, an axle tree, and a strap, substitute two cast iron wheels of other dimensions than those formerly used, and one thresher.

THOMAS NICOL.
PRUDENT NICOL.

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A. D. 1852.—(CANADA.)—No. 349.

Butter Machine

BEARS PATENT to Asa Willard, of the City of Montreal,
Gentleman, for the Invention of "A BUTTER MACHINE."

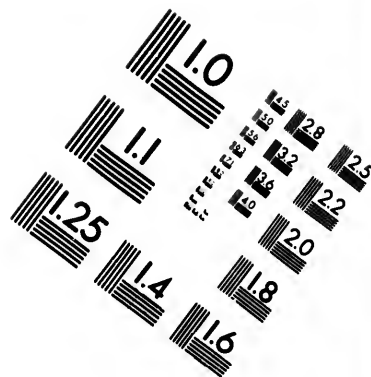
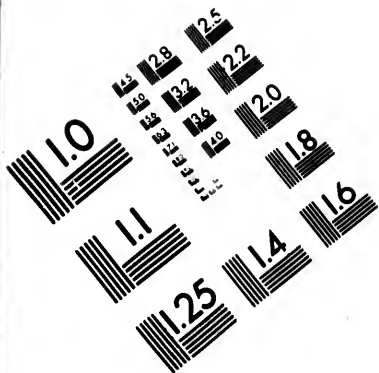
Quebec, dated 23rd January, 1852.

BRIEF DESCRIPTION.

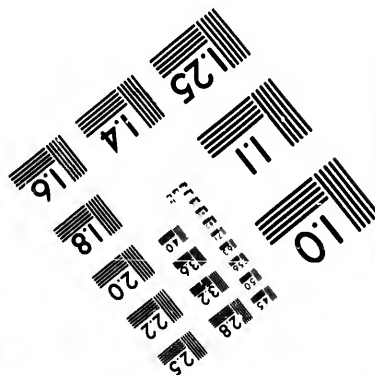
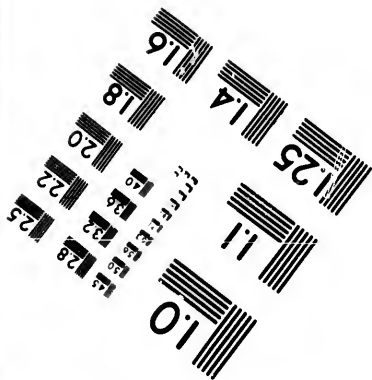
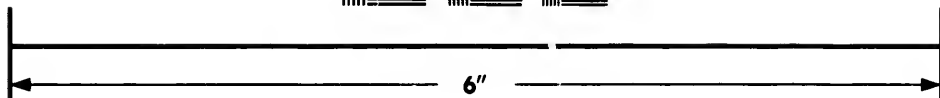
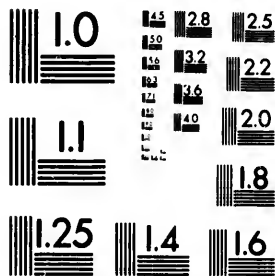
It consists in the combination of one or more fluted rollers, with one or more floats to operate so as not only to aid the process of separating the butter from the cream or butter milk, but afterwards, and when the motion of the dasher is reversed, to throw into ridges the butter spread on the bottom of the floats. Also in the power of gathering the spread butter towards the middle and preventing the butter from adhering to the ends of the reservoir. And in the stuffing box, bearing socket, pins, and shaft, as connected with a crank wheel.

ASA WILLARD.





**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
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WEBSTER, N.Y. 14580
(716) 872-4503

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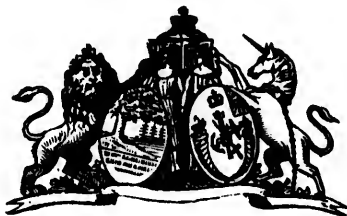
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A. D. 1852.—(CANADA.)—No. 350.

New and improved method of constructing Carriages.

LETTERS PATENT to Justus Sherwood Jones, of Brockville, in the County of Leeds, Gentleman, for the Invention of "A NEW AND IMPROVED METHOD OF CONSTRUCTING CARRIAGES."

Quebec, dated 20th March, 1852.

BRIEF DESCRIPTION.

Firstly, a coil or spiral spring is applied to the axle tree. Secondly, the front and hind parts of the carriage are connected by bars, from the springs on the front axle tree to the springs on the hind one, instead of by a reach. Thirdly, the body of the carriage is fastened to the bars on the springs instead of to the axle trees.

See Drawing No. 350.

JUSTUS SHERWOOD JONES.

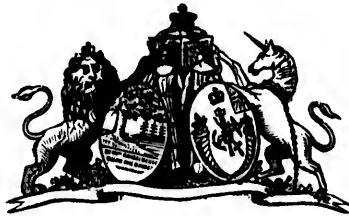
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A. D. 1852.—(CANADA.)—No. 351.

*Improvements in the manner of working Muley
Saws, and the machinery attached thereto.*

LETTERS PATENT to Charles Dawson, of the Town of Cobourg,
in the County of Northumberland, Mill Wright, for the Inven-
tion of "IMPROVEMENTS IN THE MANNER OF WORKING MULEY
SAWS AND THE MACHINERY ATTACHED THERETO."

Quebec, dated 20th March, 1852.

BRIEF DESCRIPTION.

The upper muley is a frame strongly secured to the fender beam of the saw mill, and in which are placed upright parallel guide rods for the purpose of carrying the top of the saw, to which are attached a cross head and wooden boxes lined with anti-friction metal. The rods slide up and down by means of a rack screw, and at their bottom are attached the jaws of the muley. The lower muley is a frame secured to the fender sill of the saw mill, having rods, cross head, and wooden boxes likewise for the purpose of carrying the bottom of the saw. The rods are self-lubricating, motion is communicated from the crank to the saw by means of a pitman, attached to the iron cross head by a strap jib and key at the bottom of the saw.

See Drawing No. 351.

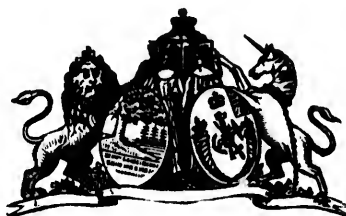
CHARLES DAWSON.

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A. D. 1852.—(CANADA.)—No. 352.

New and improved method of constructing Ploughs.

LETTERS PATENT to Charles Lemon, of the Township of Augusta, in the County of Grenville, Esquire, for the Invention of "A NEW AND IMPROVED METHOD OF CONSTRUCTING PLOUGHS."

Quebec, dated 31st March, 1852.

BRIEF DESCRIPTION.

Firstly, the beam is separate from the body of the plough, to the standard of which it is fastened by a dove tail joint and a screw bolt. Secondly, the mould board is so constructed and shaped as to make the draught more easy and turn the sod better than the ploughs in general use. Thirdly, the upper edge of the mould board is carved inwards so that the handle of the plough rests against it in a notch, which prevents a forward and backward motion of the handle, and is secured by a screw bolt and nut to the mould board, which prevents a side motion, the handle being thus kept firm in its place. Fourthly, the manner of constructing the muzzle or clevis, which from its peculiar construction (the front piece being moveable) admits of an upright piece, through which a draught rod passes, being lowered or raised at pleasure and enables the ploughman to regulate the width and depth of the furrow.

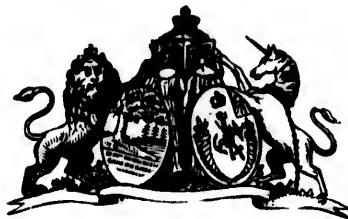
CHARLES LEMON.

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A. D. 1852.—(CANADA.)—No. 353.

*New and improved apparatus or Lamp for burning
Benzole or Hydro-carbons.*

LETTERS PATENT to Samuel Cutter, of the City of Montreal,
Machinist, for the Invention of "A NEW AND IMPROVED APPA-
RATUS OR LAMP FOR BURNING BENZOLE OR HYDRO-CARBONS."

Quebec, dated 19th April, 1852.

BRIEF DESCRIPTION.

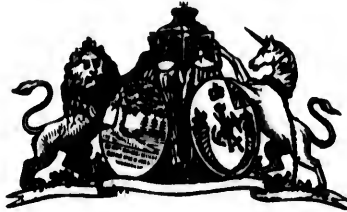
It is the method of procuring artificial light and heat by forcing atmospheric air through a mixture of water, alcohol, benzole, or other Hydro-carbon, the same air having been previously rendered damp by being forced through a bath of pure water.

SAMUEL CUTTER.

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A. D. 1852.—(CANADA.)—No. 354.

Direct action Fire Engine.

LETTERS PATENT to William Perry, of the City of Montreal, Fire Engine Manufacturer, for the Invention of "A DIRECT ACTION FIRE ENGINE."

Quebec, dated 30th April, 1852.

BRIEF DESCRIPTION.

The improvement consists in a direct passage from the working barrel to the hose outlet, in having this passage inclined from the bottom of the barrel to the same, in having the outlet valves suspended in such a manner as to assist in directing the water into the passage, and in the peculiar form of the air vessel which forces the water into the direction thereof.

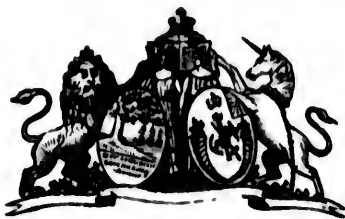
WILLIAM PERRY.

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A. D. 1852.—(CANADA.)—No. 355.

Self-acting apparatus for disconnecting the Carriages of a Railway Train from the tender, upon the Engine leaving the rails

LETTERS PATENT to Thomas Currie Gregory, of the City of Hamilton, Civil Engineer, for the Invention of "A SELF-ACTING APPARATUS FOR DISCONNECTING THE CARRIAGES OF A RAILWAY TRAIN FROM THE TENDER, UPON THE ENGINE LEAVING THE RAILS."

Quebec, dated 28th May, 1852.

BRIEF DESCRIPTION.

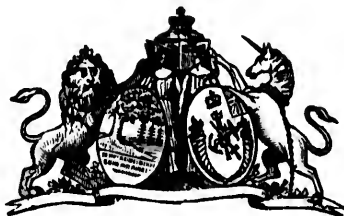
It consists of a box containing a strong spring, fixed on the back of the tender, and a lever running along the centre of the engine and tender, and hung to the engine by a bar, through the buffer board, and to the tender by a strong tray which also bears the fulcrum. That the engine and tender may be separated the lever is cut,—one end being made solid, the other hollow, the two parts fitting nicely, and play is allowed by means of an opening in which a pin is placed. At the extreme end of the lever the end is made in the form of a hook, which passes through a stud on the box, at the back board of the tender, and keeps the box in position. In order to charge the instrument the box and spring must be turned, before the engine and tender are joined, until the stud is brought under the end of the lever; the hook of the lever is run through this stud, and through a bar of iron attached to the buffer board to keep the lever steady. The

Gregory's apparatus for disconnecting Railway Carriages.

junction of the engine and tender is then effected, the carriage hook is attached, and the engine and train start. Should the front wheels of the engine or the back wheels of the tender go off the rails, the level of the lever is destroyed, the front end falls, and the lever turning on the fulcrum, the back end rises out of the stud, and releases the box, the spring recoils and the box returns to its original inactive position, and as there is an opening in the top rim to which the carriage hook is attached, to allow of its falling out when required, the train becomes thereby detached.

See Drawing No. 355.

THOMAS CURRIE GREGORY.



A. D. 1852.—(CANADA.)—No. 356.

*New and useful method of constructing Yokes for
Oxen.*

LETTERS PATENT to Horatio A. Rockwell, of the Township of
Farnham, in the District of Montreal, for the Invention of "A
NEW AND USEFUL METHOD OF CONSTRUCTING YOKES FOR OXEN."

Quebec, dated 8th May, 1852.

Extended to Upper Canada, under 14th, and 15th, Vict. See No.
90, Volume I.

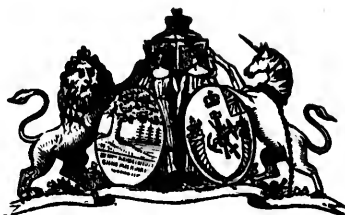
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A. D. 1852.—(CANADA.)—No. 357.

*Improvement in the composition and form of wheels
for all kind of carriages.*

LETTERS PATENT to Peter Murdoch, of the Township of Ancaster,
in the County of Wentworth, Machinist, for the Invention of
"AN IMPROVEMENT IN THE COMPOSITION AND FORM OF WHEELS
FOR ALL KINDS OF CARRIAGES."

Quebec, dated 28th May, 1852.

BRIEF DESCRIPTION.

The hob or central part of the wheel is made of cast iron, and cast on a steel mandrel, to give it a hard quality. The spokes are made of round bar iron, and are inserted in the hob by drilling and screwing them tight into it. The rim is composed of one or more pieces of a square bar, made into a proper circle, with holes drilled for the spokes, each of which has a tenon turned of a corresponding size. The holes in the rim are counter sunk on the outside, and fitted on the spokes, each spoke being riveted tight. The wheel stands perfectly upright, and runs on an axle tree, with a parallel arm or journal. Its construction is such that the spokes when in position make as it were a double row, bracing from both sides, and the spoke which is perpendicular above the axle tree suspends as much weight as is supported by the one immediately under.

See Drawing No. 357.

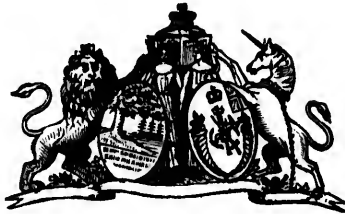
PETER MURDOCH.

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A. D. 1852.—(CANADA.)—No. 358.

*New and useful improvement in the manufacture
and construction of a Steam Generating Ap-
paratus.*

LETTERS PATENT to Louis Lemoine, of the City of Quebec,
Machinist, for the Invention of "A NEW AND USEFUL IMPROVE-
MENT IN THE MANUFACTURE AND CONSTRUCTION OF A STEAM
GENERATING APPARATUS."

Quebec, dated 9th June, 1852.

BRIEF DESCRIPTION.

It consists in the general arrangement of the steam generator, the four concentric vessels with iron cement between each two, to prevent oxidation of the heated surface; the peculiar construction of the rotary cock for admitting the water; the disposition of the lever for opening and closing the valves; the plate connecting the rotating piston with the axle; the metallic rings forming the packing thereof, and the general arrangement of the several parts.

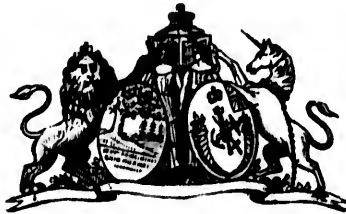
LOUIS LEMOINE.

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A. D. 1852.—(CANADA.)—No. 359.

Churn called "The reciprocating Churn."

LETTERS PATENT to Benjamin Gumear, of the Town of London, in the County of Middlesex, Yeoman, for the Invention of "A CHURN CALLED "THE RECIPROCATING CHURN."

Quebec, dated 15th June, 1852.

BRIEF DESCRIPTION.

The chamber is framed together in the ordinary way, with a moveable cover, and fitted closely to prevent leakage. There is a compound crank revolving in boxing fastened to the chamber and worked by a winch. Connecting rods are attached to the crank, and their lower ends are furnished with hooks, to pass through staples in beaters or strikers perforated to allow the free passage of the liquid during the operation. The crank communicates a reciprocating motion through the connecting rods to the beaters, which agitates the liquid in opposite directions, and facilitates coagulation.

See Drawing No. 359.

BENJAMIN GUMEAR.

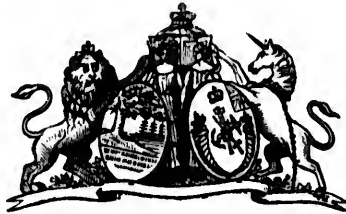
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A. D. 1852.—(CANADA.)—No. 360.

New and useful improvement in the Seed Drill.

LETTERS PATENT to Lawrence Hager, of the Village of Palermo, in the Township of Trafalgar, in the County of Halton, Yeoman, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE SEED DRILL."

Quebec, dated 30th June, 1852.

BRIEF DESCRIPTION.

The machine, whereby the difficulties which occurred and interfered with the successful working of the drill are completely removed, has a cast iron bottom slightly convex, with square orifices at a distance of seven inches from each other. Under this bottom is a second made by placing a roller fitting into the concave of the first bottom, and on this roller are placed small wheels or rings fastened to the roller and fitting into the square orifices of the first bottom or floor; in these rings are cast sunken buckets which convey the seed through the square orifices, as the roller, forming the second bottom, is revolved. The roller is turned or revolved by a band from the hub of the wheel of the carriage, or by cogs placed in the hub and meshing into those placed in the roller. The quantity of seed to be sown is regulated by a slide on the side of the hopper immediately over that end of the square orifices where the seed is carried by the buckets of the roller to the spouts.

See Drawing No. 360.

LAWRENCE HAGER.

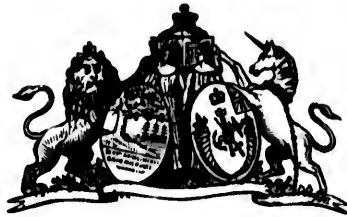
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A. D. 1852.—(CANADA.)—No. 361.

*Increasing twist and curvilinear Mould Board for
Ploughs.*

LETTERS PATENT to William Knaggs, of the Township of Etobicoke, in the County of York, Model machine maker and Farmer, for the Invention of "AN INCREASING TWIST AND CURVILINEAR MOULD BOARD FOR PLOUGHS."

Quebec, dated 30th June, 1852.

BRIEF DESCRIPTION.

It consists in the increasing twist and curvilinear form of the mould board. By this mode of construction the pressure on the mould board is met by the necessary resistance on the land side of the plough, the furrow presses evenly along the mould board, and the land side is so constructed and met as to keep parallel with the working surface of the mould board, thereby meeting all resistance from the pressure of furrow side. The length and curve of breast, with shear added thereto, together with the peculiar curvature and twist of mould board, has been shewn by experience to turn up soil the whole length of mould board without breaking, advantages not to be attained, and, indeed, not attainable by or with any plough heretofore manufactured or used.

See Drawing No. 361.

WILLIAM KNAGGS.

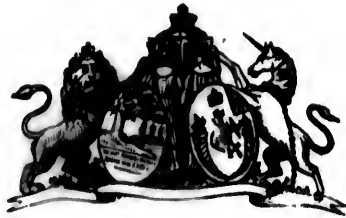
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A. D. 1852—(CANADA.)—No. 362.

New and improved mode of purifying Illuminating Gas.

LETTERS PATENT to Abram Longbottom, of the City of Montreal, Engineer, for the Invention of "A NEW AND IMPROVED MODE OF PURIFYING ILLUMINATING GAS."

Quebec, dated 29th July, 1852.

BRIEF DESCRIPTION

A new and improved mode of purifying illuminating gas, whether generated from coal, oil, resin, fat, or any other material, by passing it through a mixture of quick lime and animal charcoal, at a temperature so regulated that, at the lowest point, or where the gas enters the composition, the heat is below redness.

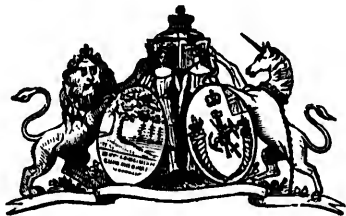
ABRAM LONGBOTTOM.

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A. D. 1852.—(CANADA.)—No. 363.

Portable horizontal and self-acting Sawing Machine.

LETTERS PATENT to Robert Might, of the Township of Cavan, in the County of Durham, Yeoman, for the Invention of "R. MIGHT'S PORTABLE HORIZONTAL AND SELF-ACTING SAWING MACHINE."

Quebec, dated 10th August, 1852.

BRIEF DESCRIPTION.

It is portable, being framed in hard-wood sills, and worked by hand, or it can be attached to any other motive power. It is self-acting, the whole process of cutting and feeding the saw being accomplished by the adaptation of the apparatus to those objects, and the saw has a perfectly direct action, never deviating from a straight line, and giving as nearly as possible a true horizontal stroke. This last desideratum is obtained by the construction and arrangement of a balance crank with a pitman attached. A saw slide connected by a coupling iron to the pitman, two saw cases and three guides. The saw is connected with the slide by two screw bolts, and the latter is kept in position by the guides and cases. The feeding of the saw is regulated by a weight, and the whole process of cutting and feeding, after rolling in the log and setting the length gauge, is accomplished by raising the saw, which causes the log to pass forward to the required length for each successive cut. It is applicable to all kinds of cross cut sawing, of wood, stone or metal.

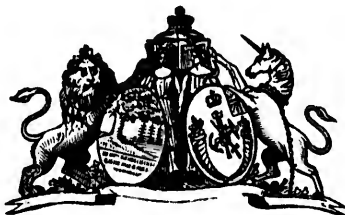
ROBERT MIGHT.

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A. D. 1852.—(CANADA.)—No. 364.

*New and scientific mode of constructing Flues or
Chimnies.*

LETTERS PATENT to Samuel Andres, of Chambly, in the District
of Montreal, for the Invention of "A NEW AND SCIENTIFIC
MODE OF CONSTRUCTING FLUES OR CHIMNIES."

Quebec, dated 12th August, 1852.

BRIEF DESCRIPTION.

It consists in the peculiar construction of that part of the flue, or chimney, near the fire and its gradual expansion as it rises, observing certain fixed proportions in the respective dimensions of the diameter, if circular, and of the area, if of any other form than circular, of the lower and upper parts of the flue.

SAMUEL ANDRES.

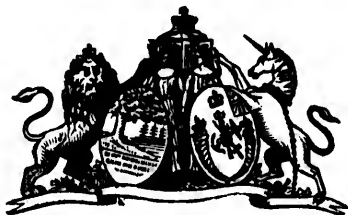
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A. D. 1852.—(CANADA.)—No. 365.

Smoothing Iron, called the improved draft and damper box Smoothing Iron.

LETTERS PATENT to George William Lester, of the Township of Sidney, in the County of Hastings, Esquire, for the Invention of "A SMOOTHING IRON CALLED THE IMPROVED DRAFT AND DAMPER BOX SMOOTHING IRON."

Quebec, dated 24th August, 1852.

BRIEF DESCRIPTION.

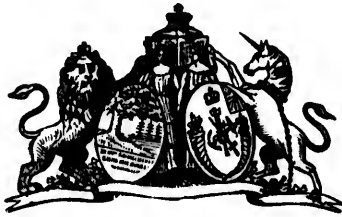
The interior of the iron is filled with charcoal for fire, and has a flue or main draft passing through it with a damper at the back to regulate the heat. The air is admitted at the damper and passing through the flue, fills the place occupied by the charcoal, and issues out through a main chimney in front, having a circular chimney fitting thereon. The top of the iron is moveable for putting in the fuel, and is kept on by a pin and dovetail; all is made of iron except the handle, which is wood.

GEORGE WILLIAM LESTER.

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A. D. 1852.—(CANADA.)—No. 366.

Mill Stone Pickers.

LETTERS PATENT to John Rourke, of the City of Montreal,
Machinist, for the Invention of "MILL STONE PICKERS."

Quebec, dated 24th August, 1852.

BRIEF DESCRIPTION.

It consists in a shaft which is hung in a suitable frame or bed piece, or upon any convenient support near it intended to act upon the stone itself, and which receives a vibrating motion through a cam driven either by the spindle of a mill or by other means, and which carries a hammer and pick moving in various directions across the stone, the pick being capable of adjustment in the hammer to vary the position of its edge, and the strength of the blow being regulated by springs applied for the purpose.

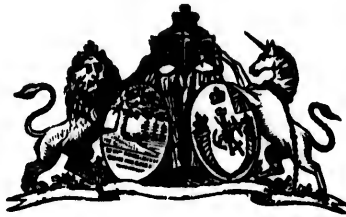
JOHN ROURKE.

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A. D. 1852.—(CANADA.)—No. 367.

Machine called Trenholm's Elevator.

LETTERS PATENT to Edward Trenholm, of the Township of Kingsey, in the County of Drummond, in the District of St. Francis, for the Invention of "A MACHINE CALLED TRENHOLM'S ELEVATOR."

Quebec, dated 26th August, 1852.

BRIEF DESCRIPTION.

It is an application of endless chains for the purpose of raising and lowering ponderous goods, and of a self-acting means of discharging them upon their ascent or descent at any required stage, height, or distance.

EDWARD TRENHOLM.

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A. D. 1852.—(CANADA.)—No. 368.

New and useful improvement in Muley Saw Mills.

LETTERS PATENT to Thomas J. Fuller, of the City of Toronto,
Gentleman, for the Invention of "A NEW AND USEFUL IMPROVE-
MENT IN MULEY SAW MILLS."

Quebec, dated 31st August, 1852.

BRIEF DESCRIPTION.

It consists, firstly, in a cast iron slide in the form of a V, which is laid in grooves in a cast iron frame. On the back of the slide there is a row of cogs meshing into a ratchet wheel for the purpose of moving the slide up and down at pleasure, so as to bring the guides near the top of the log, when sawing, and adapting them to the diameter of the log, thus keeping the saw from springing. Secondly, in the ordinary rods used in gate saw-mills which here run in metal boxes, and which boxes are packed with hemp, raw-hide, india-rubber, or any other packing, to decrease friction and prevent the rods and boxes from wearing. And thirdly, in the general combination of all the parts of the machine for the purpose intended.

See Drawing No. 368.

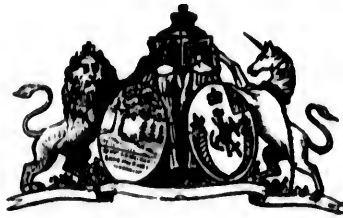
THOMAS J. FULLER.

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A. D. 1852.—(CANADA.)—No. 369.

Several new and useful improvements on Cooking Stoves.

LETTERS PATENT to James Kent Griffin, of the Village of Water-down, in the County of Wentworth, Ironfounder, for the Invention of "SEVERAL NEW AND USEFUL IMPROVEMENTS ON "COOKING STOVES."

Quebec, dated 7th September, 1852.

BRIEF DESCRIPTION.

They consist firstly, in the employment of a raising and falling grate in connection with suitable registers in the fire doors, for the purposes of directing and increasing or diminishing the admission of air according to the position of the grate, and the quantity of fuel or heat required, being a simple and complete summer and winter apparatus. Secondly, in the use of any airing flue for the fire and smoke in front of the oven, and immediately back of the fire place, (substantially as described in Letters Patent granted me the 13th of March, 1851, excepting that no flame or smoke is made to pass through the hollow doors as in the said Letters Patent described,) in connection with the hot air draft. Thirdly, in an independent air draught for cooling the back or fire plates, for protecting the front of the oven, and for heating the end of the oven through hollow doors. And fourthly, in a superior method of broiling meat and toasting bread in connection with the shifting grate aforesaid.

See Drawing No. 369.

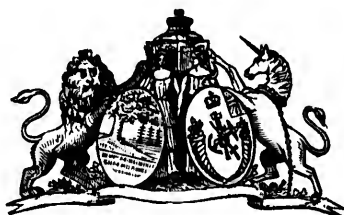
JAMES KENT GRIFFIN.

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A. D. 1852.—(CANADA.)—No. 370.

Washing and Churning Machine.

LETTERS PATENT to Richard Lossing, of the Township of Norwich,
in the County of Oxford, Engineer, for the Invention of "A
WASHING AND CHURNING MACHINE."

Quebec, dated 31st August, 1852.

BRIEF DESCRIPTION.

The machine is set in a frame and worked by a driving wheel with a handle, and connected by a band to a pulley, to which is attached a crank and two pitmen. To each pitman is connected a hammer for beating the clothes to be washed which are placed in a box having the end concave where the blow is given. The force of the blow of the hammer is broken by a fly-wheel. The dash for the churn is connected to a lever to which one of the pitmen is brought round and coupled by a pin, and at the same time the other pitman is loosened and the fly-wheel is thereby left free to work the churn.

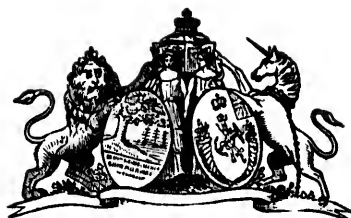
See Drawing No. 370.

RICHARD LOSSING.

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A. D. 1852.—(CANADA.)—No. 371.

Improvement on the Plough.

LETTERS PATENT to Samuel Hurlbert, of the Town of Prescott, in the County of Grenville, Founder and Machinist, for the Invention of "AN IMPROVEMENT ON THE PLOUGH FOR WHICH HE HAS ALREADY OBTAINED A PATENT DATED THE 17th OCTOBER, 1850.

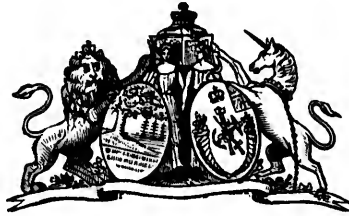
Quebec, 20th September, 1852.

BRIEF DESCRIPTION.

The improvement consists in the mould board and point being constructed upon the principle of circles, both horizontally and perpendicularly.

SAMUEL HURLBERT.





A. D. 1852.—(CANADA.)—No. 372.

*New and useful improvement on a machine for
Cutting Straw.*

LETTERS PATENT to Alfred Gifford, of the Township of Whitby, in the County of Ontario, Engineer, for the Invention of "A NEW AND USEFUL IMPROVEMENT ON A MACHINE FOR CUTTING STRAW, PATENTED BY RICHARD TREMAIN, THE 24TH OF SEPTEMBER, 1849.

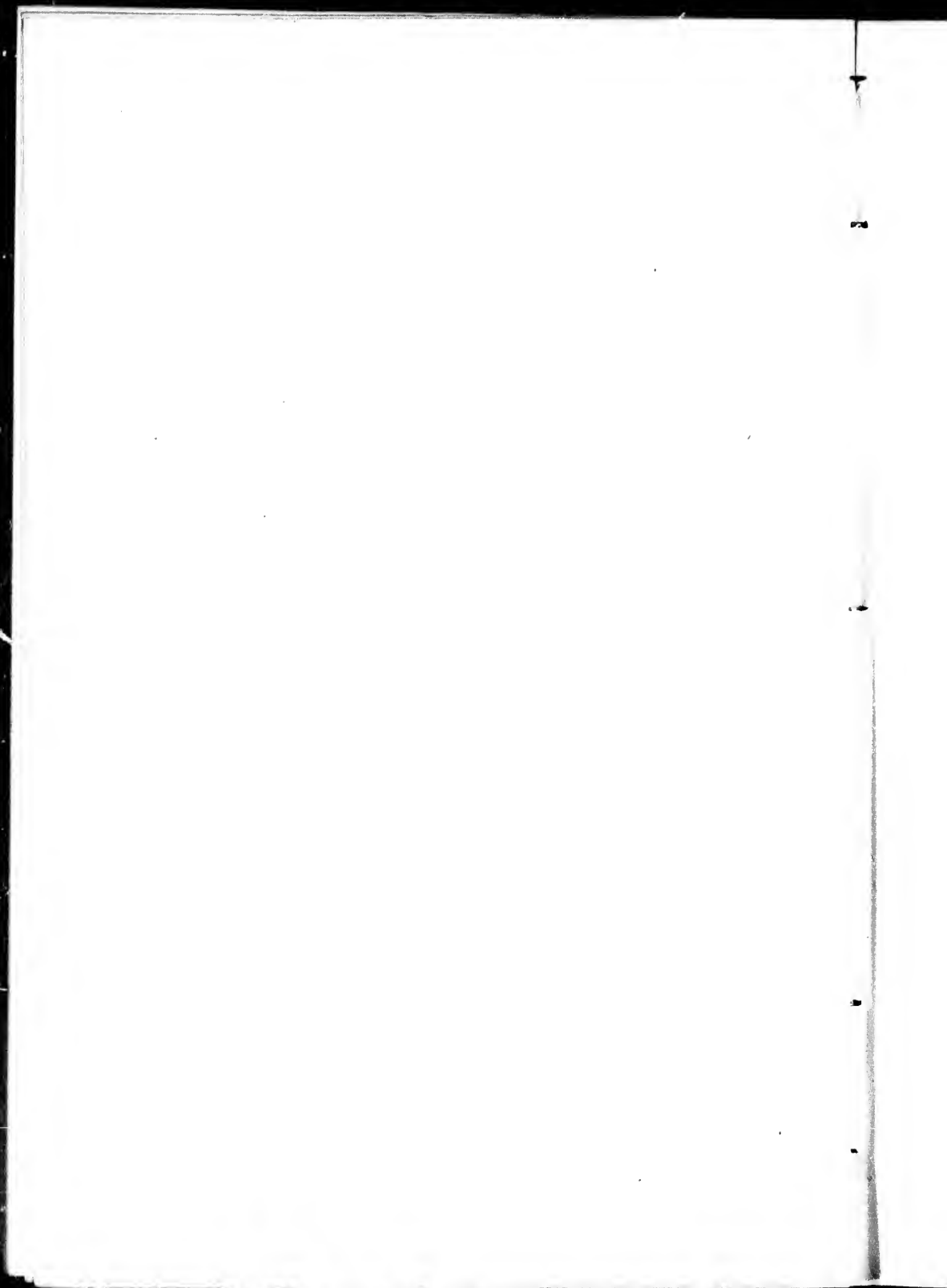
Quebec, 20th September, 1852.

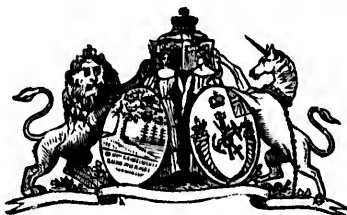
BRIEF DESCRIPTION.

It consists in having two knives instead of one placed in different positions, and in having the straw drawn in by the rollers driven by spiral gearing, by which the machine is much stronger and more simple, and the action easier, so that a man can cut one-third faster than with Tremain's Patent, and the cost is one-third less.

See Drawing No. 372.

ALFRED GIFFORD.





A. D. 1852.—(CANADA.)—No. 373.

Improved method of constructing a Corn Cracker.

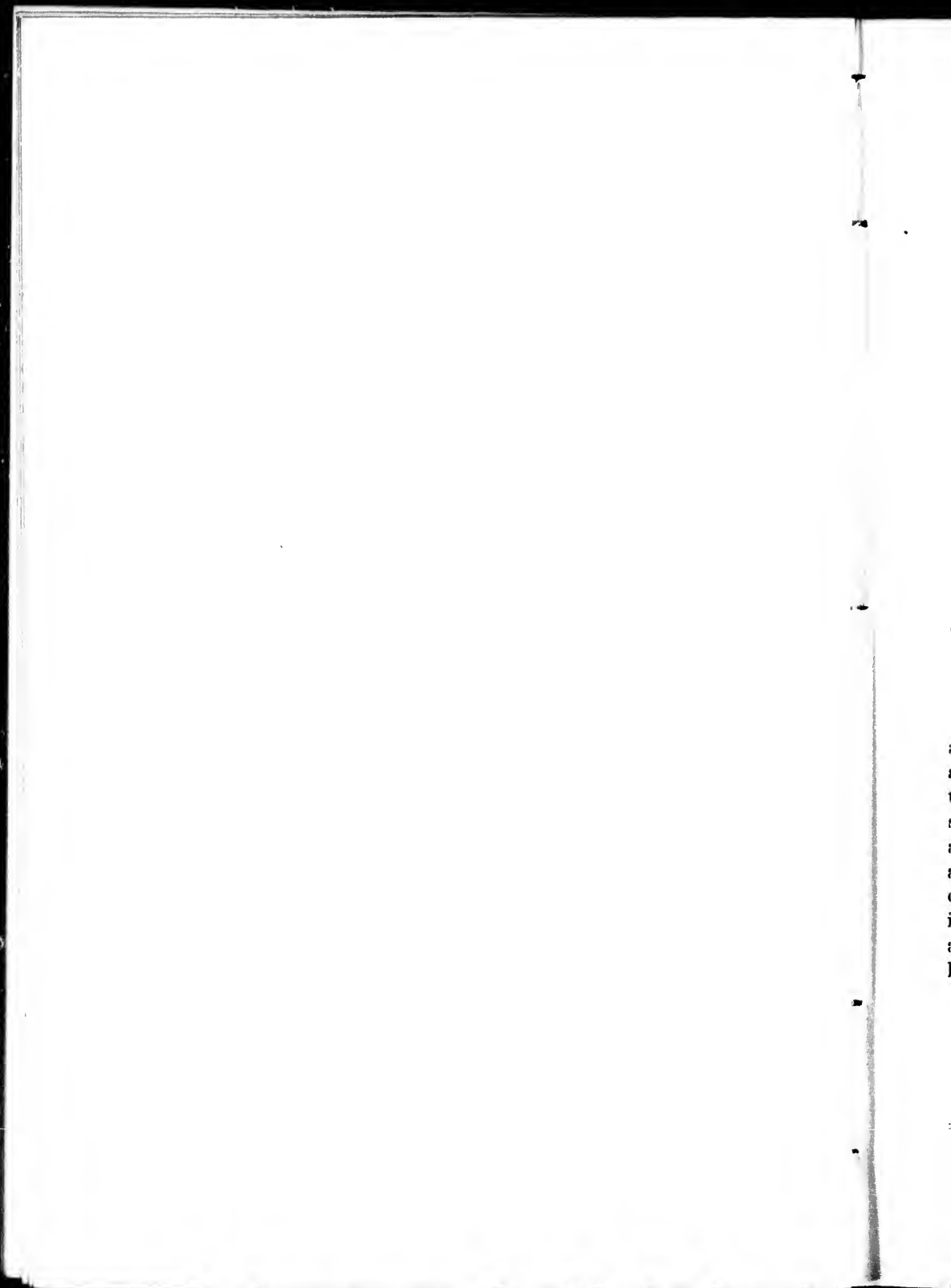
LETTERS PATENT to George March Sperry, of the Parish of St. Joseph, of Chambly, in the District of Montreal, Millwright, for the Invention of "AN IMPROVED METHOD OF CONSTRUCTING A CORN CRACKER."

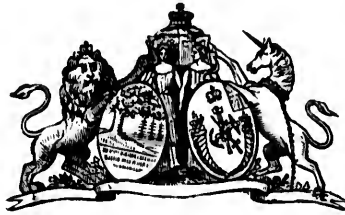
Quebec, dated 21st September, 1852.

BRIEF DESCRIPTION.

This Invention consists of a machine for cracking, cutting and grinding Indian corn cob and other substances, it being much superior to any machine in use, for the purpose for which it is used: it cutting and grinding the grain and other substances as fine again as any other machine at present used, and with less trouble and expense.

GEORGE MARCH SPERRY.





A. D. 1852.—(CANADA.)—No. 374.

New and improved Harrow.

LETTERS PATENT to Samuel Irwin Russell, of Oshawa, in the Township of Whitby, Machinist, for the Invention of "A NEW AND IMPROVED HARROW."

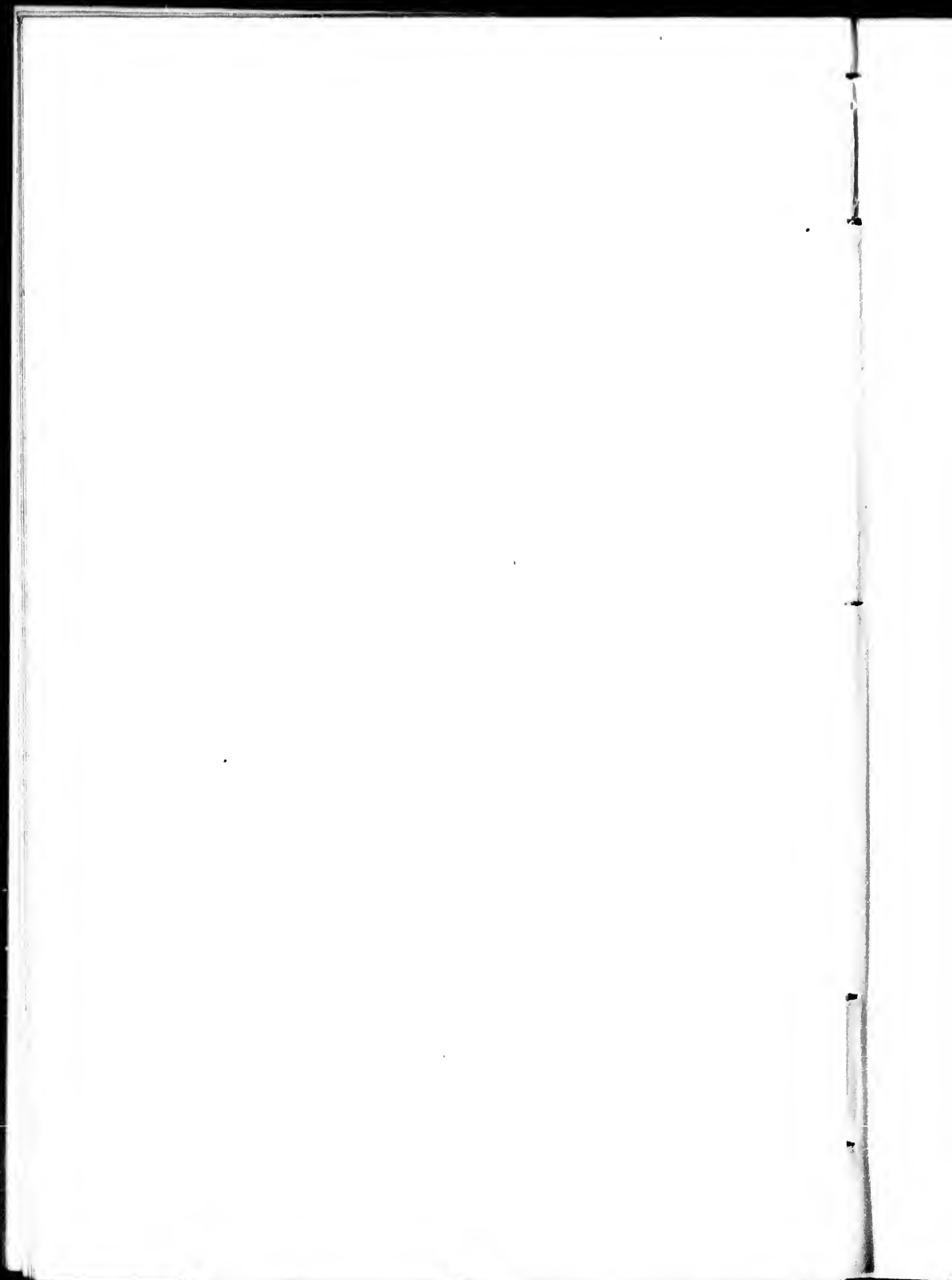
Quebec, dated 8th October, 1852.

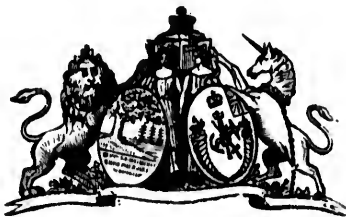
BRIEF DESCRIPTION.

It consists of an iron frame connected with a wooden tree by bolts and nuts. The bars are cast in the form of a T, combining strength and lightness of metal, and the teeth are placed at the intersections of the bars, and thereby acquire the greatest possible strength. The sections of the frame are made to work parallel with each other, although one may be depressed or elevated, and the other not so, and they are united to and by a connecting rod, and the under surface of the bars is hardened by a chill. The teeth are fixed in the frame in a particular manner by a key, and spiral springs are so placed as to allow the tree, in case of a check, to move forward independent of the harrow.

See Drawing No. 374.

SAMUEL IRWIN RUSSELL.





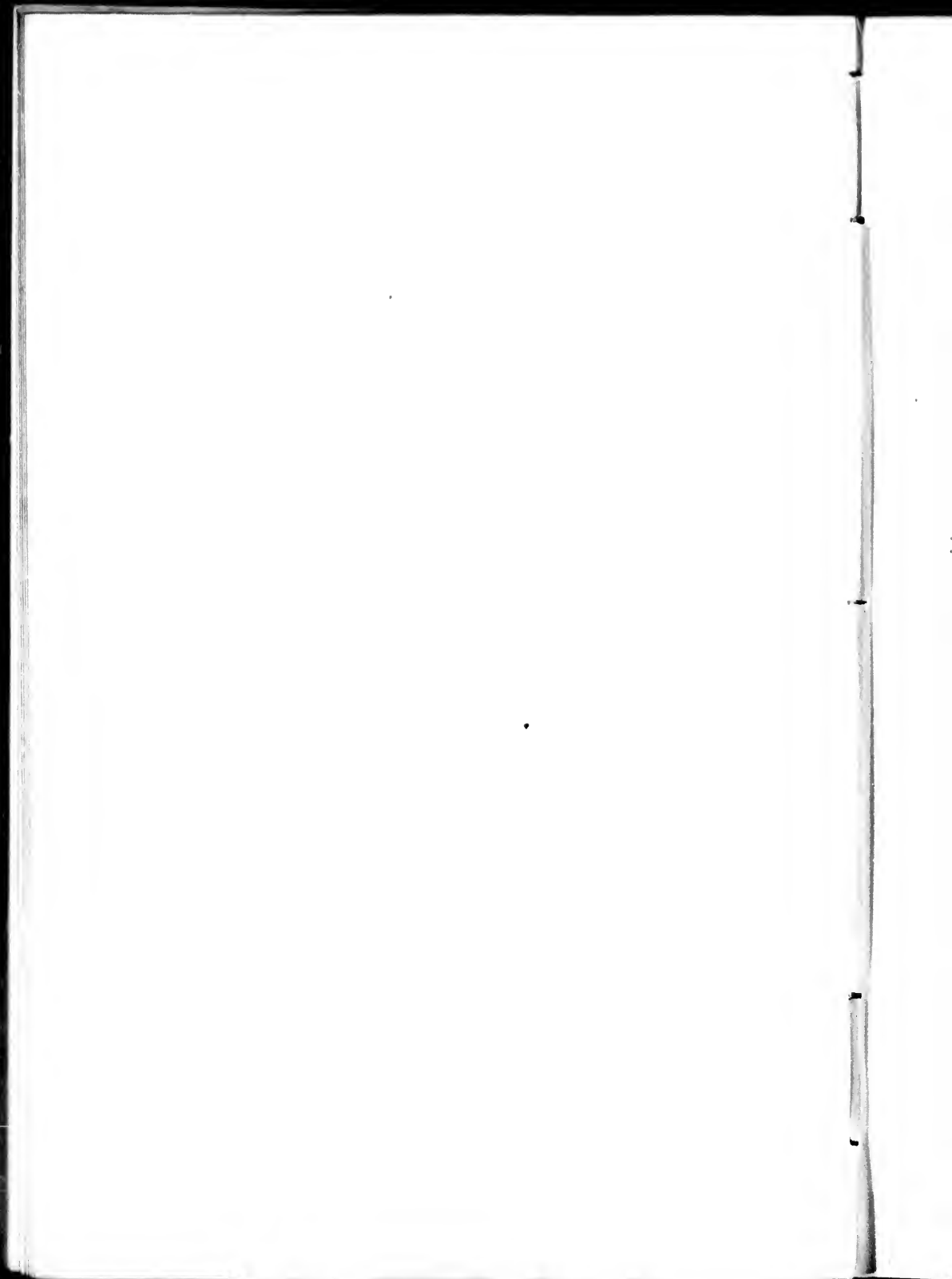
A. D. 1852.—(CANADA.)—No. 375.

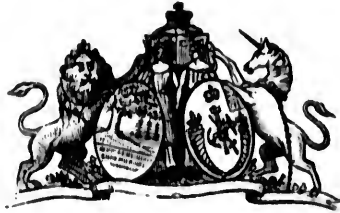
Machine for making Carriage Wheels.

LETTERS PATENT to Edward Carroll Ennis, of the Parish of L'Islet, Engineer, for the Invention of "A MACHINE FOR MAKING CARRIAGE WHEELS."

Quebec, dated 30th September, 1852.

EDWARD CARROLL ENNIS.





A. D. 1852.—(CANADA.)—No. 376.

New and improved Cooking Stove.

LETTERS PATENT to Henry Bernier, of the Parish of Lotbinière, in the District of Quebec, Founder, for the Invention of "A NEW AND IMPROVED COOKING STOVE."

Quebec, dated 5th October, 1852.

BRIEF DESCRIPTION.

The stove stands on five feet. It has a large hearth in front. The grate is to be used in mild weather, and is fixed half way up the fire place. In front of the stove is a small door for kindling the fire; the draught is regulated by a hearth plate. The heat circulates flank instead of endways as in the double stoves commonly in use.

HENRY BERNIER.

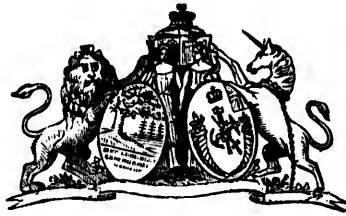
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A. D. 1853.—(CANADA.)—No. 377.

New and useful improvement in the method of constructing Threshing Machines.

LETTERS PATENT to Joseph Paradis, of the City of Montreal, Machinist, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE METHOD OF CONSTRUCTING THRESHING MACHINES."

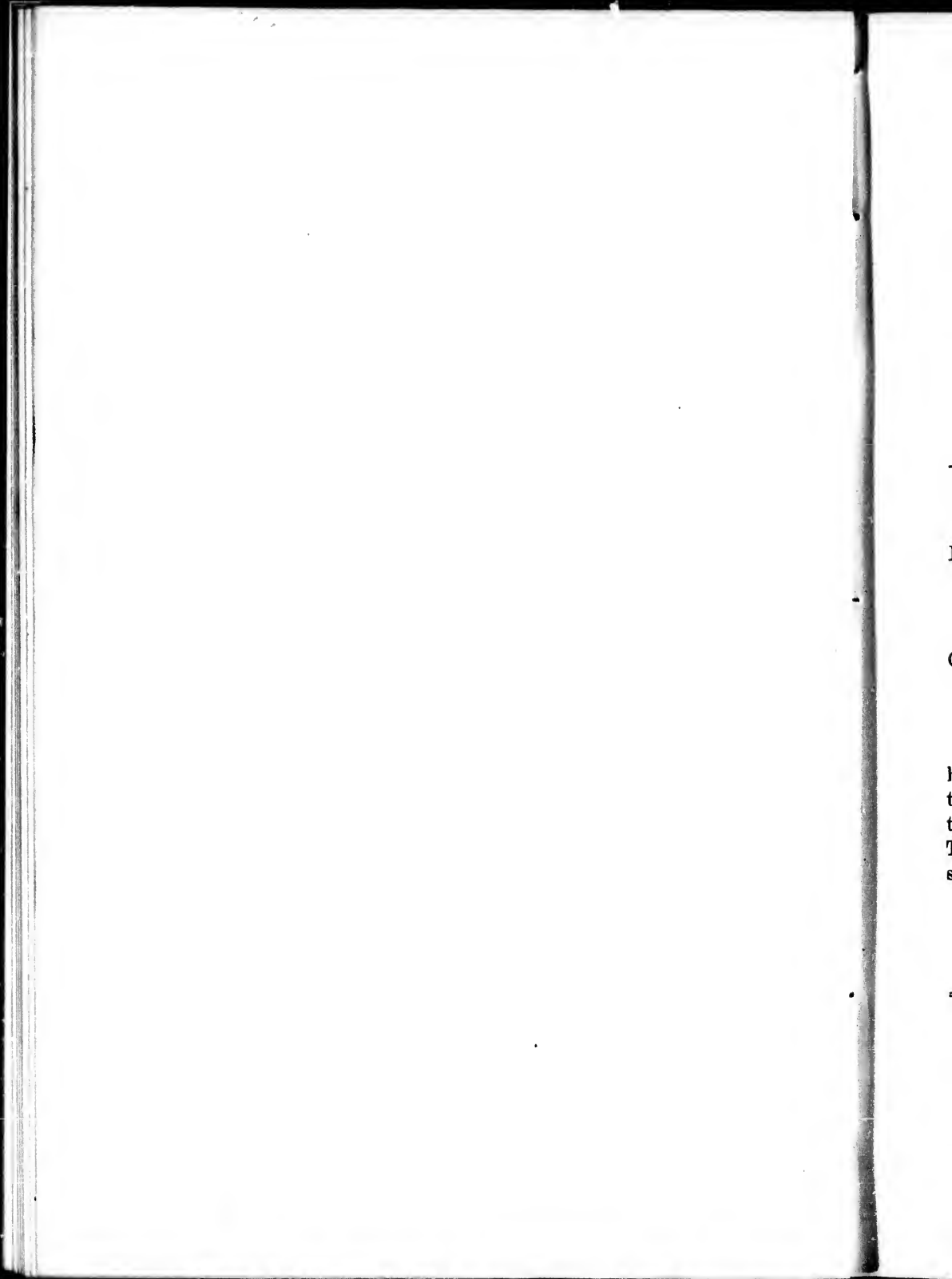
Quebec, dated 15th October, 1852.

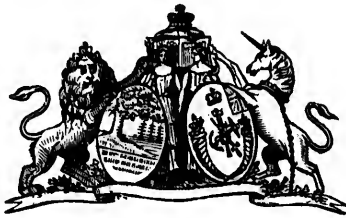
BRIEF DESCRIPTION.

The improvement is made in that part of the threshing machine by which the grain is threshed. The object of the improvement is to make use of fewer teeth. The grain is much better cleaned from smut, and the beard more effectually taken off barley. The principle claimed is the roughing or raising of any number of protuberances on the plates.

See Drawing No. 377.

JOSEPH PARADIS.





A. D. 1852.—(CANADA.)—No. 378.

New and useful improvement in the mode of constructing Double Stoves.

LETTERS PATENT to Charles Gosselin, of the Parish of St. Anne de la Pocatière, Merchant, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE MODE OF CONSTRUCTING DOUBLE STOVES."

Quebec, dated 13th October, 1852.

BRIEF DESCRIPTION.

The stove consists of three stories. The first furnace is diminished in height for the purpose of economising the fuel. At the two extremities of the horizontal sides of the furnace, dampers are placed, as in the ordinary double stoves, to give a passage to the smoke and heat. The second furnace does not differ from those of ordinary double stoves.

CHARLES GOSSELIN.

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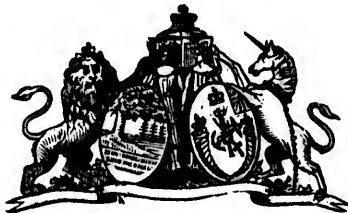
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A. D. 1852.—(CANADA.)—No. 379.

Improved Churn.

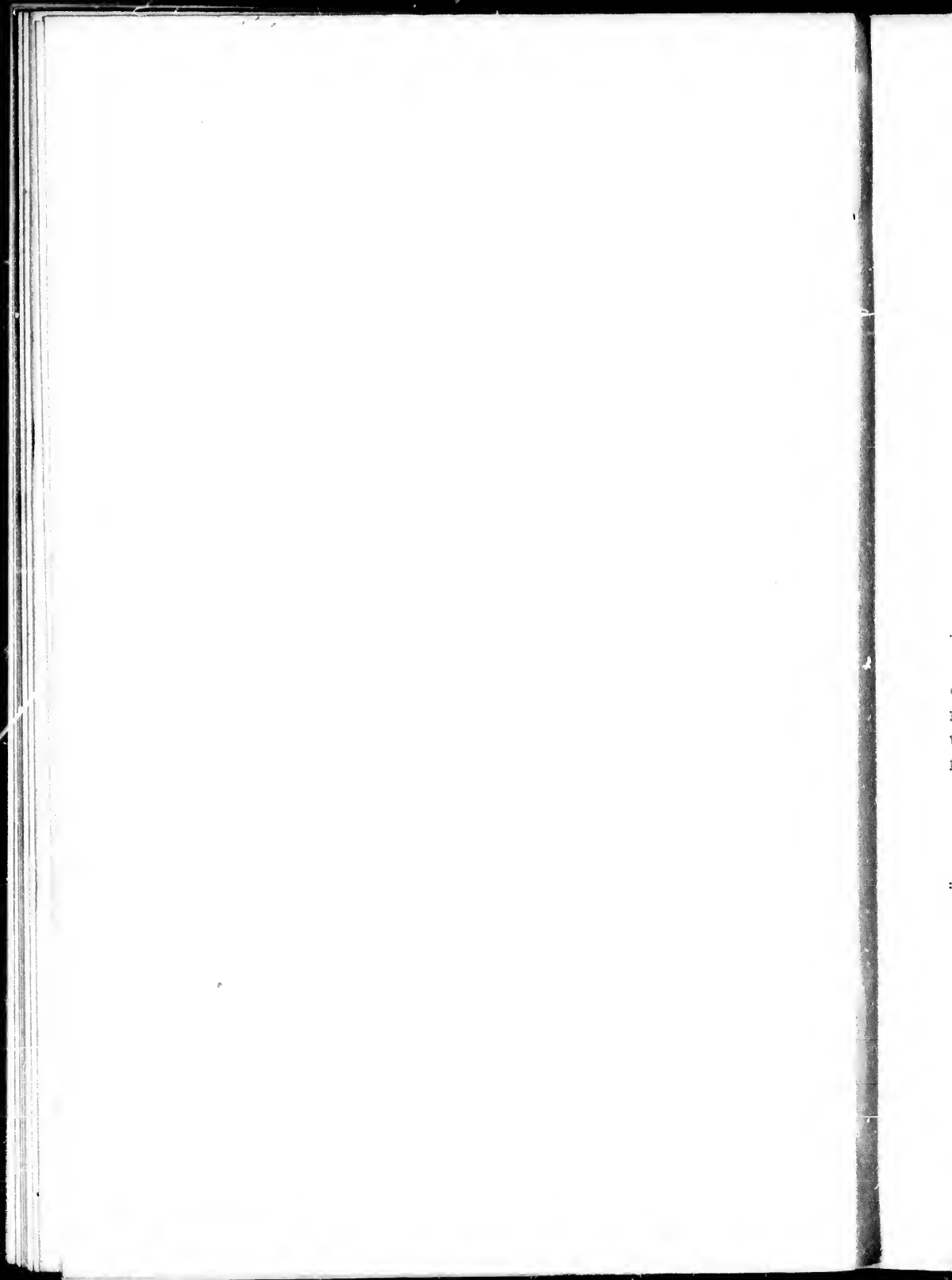
LETTERS PATENT to Charles Midgley, of the City of Montreal,
Machinist, for the Invention of "AN IMPROVED CHURN."

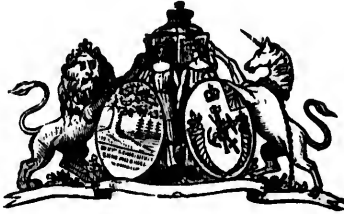
Quebec, dated 27th October, 1852.

BRIEF DESCRIPTION.

It consists in producing the proper motion in the common dash churn by placing it in a swing and connecting it with mechanism in such a manner that the vibration of the swing brings forth the motion required.

CHARLES MIDGLEY.





A. D. 1852.—(CANADA.)—No. 380.

Improved Bee Hive.

LETTERS PATENT to Charles Midgley, of the City of Montreal,
Machinist, for the Invention of "AN IMPROVED BEE HIVE."

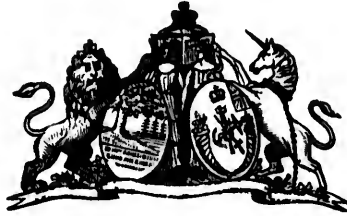
Quebec, dated 27th October, 1852.

BRIEF DESCRIPTION.

It consists in making the hive in separate parts, so that any portion of the comb can be removed at pleasure. The bees, by this improvement, experience no difficulty in passing from one part of the hive to the other, in cold weather, and they are thus prevented from being frozen.

CHARLES MIDGLEY.

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A. D. 1852.—(CANADA.)—No. 381.

New and useful improvement in making Grain Rakes.

LETTERS PATENT to William Brown, of the City of Toronto,
Machinist, for the Invention of "A NEW AND USEFUL IMPROVE-
MENT IN MAKING GRAIN RAKES."

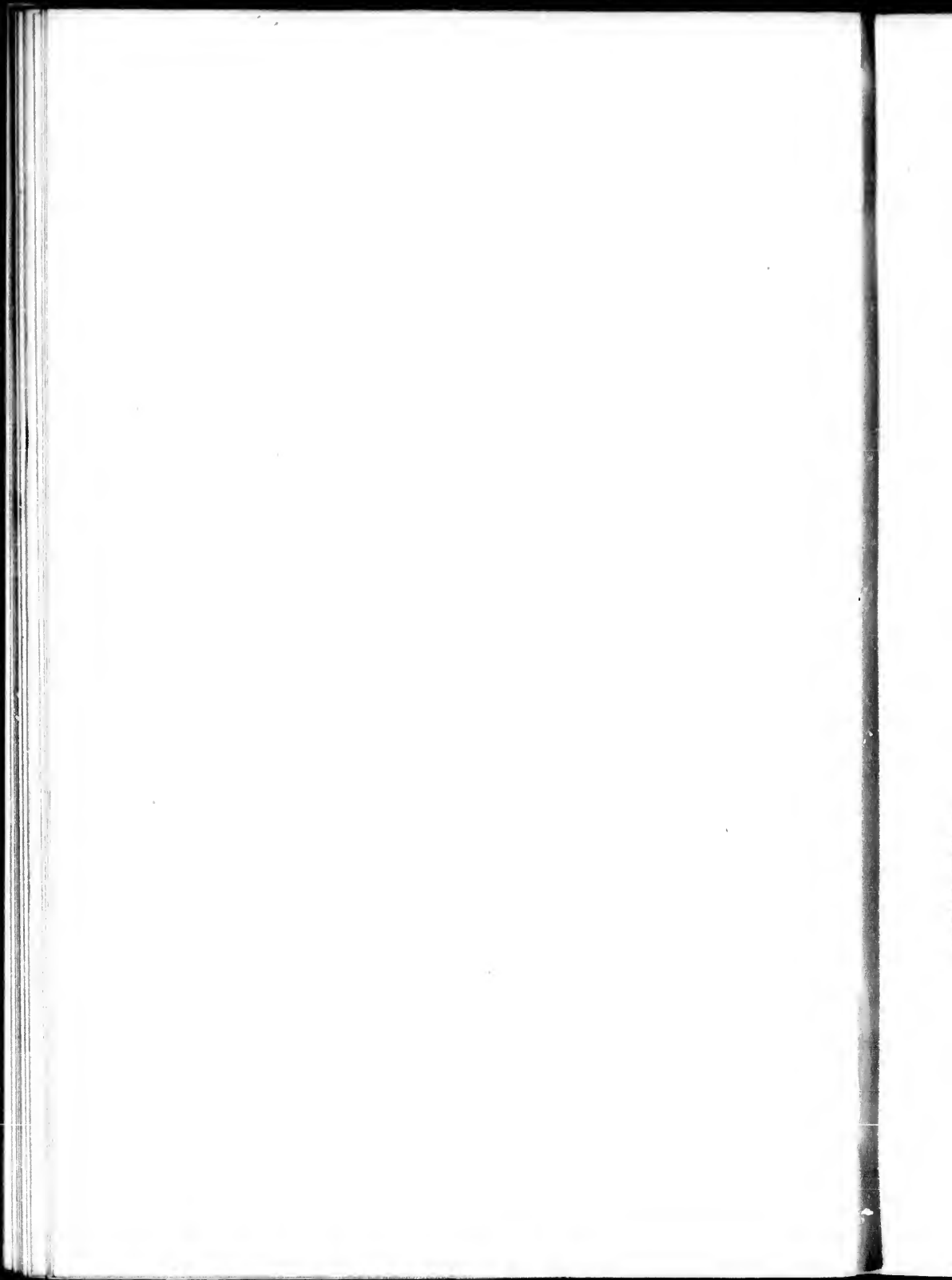
Quebec, dated 6th November, 1852.

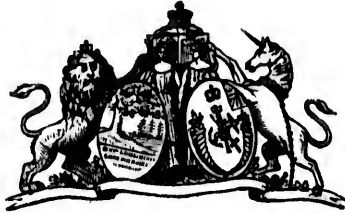
BRIEF DESCRIPTION.

It consists as usual of two wheels, axle, rake-head and teeth; a step or pedal is attached to a bar, connected with the rake-head by iron braces for raising the teeth, the height of which is regulated by a screw. Two iron bands allow the rake-head to work round the axle, Two crooks or stops for preventing the grain from falling off, after passing over the teeth, and by means of which, when the teeth are raised by the pedal, a sheaf is formed, are inserted in a bar connected with the handles of the rake; and wooden bows or lifters extend from the ends of the bar at the rake-head to the ends of the outside teeth for keeping the grain from entangling within the wheels.

See Drawing No. 381.

WILLIAM BROWN.





A. D. 1852.—(CANADA.)—No. 382.

*New and improved apparatus for warming air and
for warming and ventilating houses and other
inhabited apartments.*

LETTERS PATENT to Frederick Tiffany, of the City of Toronto,
Machinist, for the Invention of "A NEW AND IMPROVED APPA-
RATUS FOR WARMING AIR AND FOR WARMING AND VENTILATING
HOUSES AND OTHER INHABITED APARTMENTS."

Quebec, dated 6th November, 1852.

BRIEF DESCRIPTION.

It consists in the particular figure assumed by the flues from their origin at the stove to the place where they leave the furnace, that is to say: after moving horizontally, then rising vertically, and returning back at a distance from, and parallel to, the last. Also the arrangement and position of the plates of iron upon which the flues rest. Also the perpendicular relative position of certain plates of iron, dividing the space between the strata of flues for the purpose above described.

See Drawing No. 382.

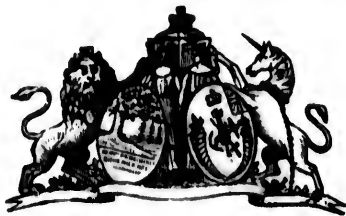
FREDERICK TIFFANY.

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A. D. 1852.—(CANADA.)—No. 383.

Compound Action Water Wheel.

LETTERS PATENT to Patrick Flinn, of the City of Montreal,
Farmer and Trader, for the Invention of "A COMPOUND ACTION
WATER WHEEL"

Quebec, dated 8th November, 1852.

BRIEF DESCRIPTION.

It consists in the combination of the action and recoil wheel both working simultaneously on the compound action wheel. The machine can be made of any size and of any suitable material.

PATRICK FLINN.

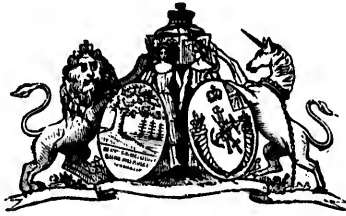
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A. D. 1853.—(CANADA.)—No. 384.

*New and useful method of constructing Spike
Machines.*

LETTERS PATENT to George Stacy, of the City of Montreal, Nail
and Spike Manufacturer, for the Invention of "A NEW AND
USEFUL METHOD OF CONSTRUCTING SPIKE MACHINES."

Quebec, dated 20th January, 1853.

BRIEF DESCRIPTION.

It comprises a self-feeding apparatus, an improved and more effective
method of cutting the rod from which the spike is made, a new and
improved method of straightening the rod whilst passing from the
furnace to the machine, and an adjustment for securing the perfect
action of the heading wedge.

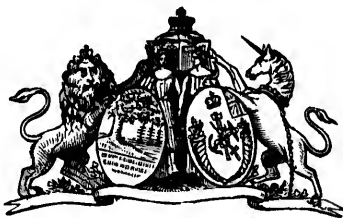
See Drawing No. 384.

GEORGE STACY.

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A. D. 1853.—(CANADA.)—No. 385.

Improved Scythe Holder.

LETTERS PATENT to William Allchin, of the Village of Paris,
in the County of Brant, for the Invention of "AN IMPROVED
SCYTHE HOLDER."

Quebec, dated 26th January, 1853.

BRIEF DESCRIPTION.

It consists of a band of iron, or any other metal, about two inches long, driven tight on to the end of the snaith, and flattened on one side, through which passes a loop bolt ; and of a claw plate of iron or any other metal to receive the claw or shank of the scythe.

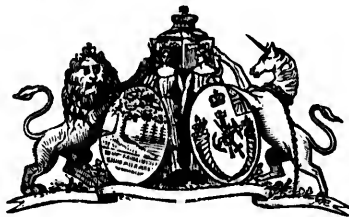
See Drawing No. 385.

WILLIAM ALLCHIN.

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A. D. 1853.—(CANADA.)—No. 386.

Centrifugal and centripetal Churn.

LETTERS PATENT to George Ansley, of the Village of Vienna, in the County of Elgin, for the Invention of "THE CENTRIFUGAL AND CENTRIPETAL CHURN."

Quebec, dated 8th February, 1853.

BRIEF DESCRIPTION.

It consists of a box so constructed that the bottom, top and two sides form three right angles, and a quarter circle with four sets of flat broad floats attached firmly to two heads, formed by two pieces of wood at right angles. The floats thus formed, are suspended upon centres, one of which being square, is connected with the crank by which it is propelled.

See Drawing No. 386.

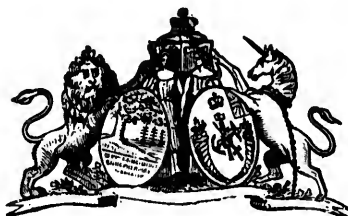
GEORGE ANSLEY.

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A. D. 1853.—(CANADA.)—No. 387.

Improvement on the Wooden Plough.

LETTERS PATENT to Ezekiel Burley, of the Township of Clarke, in the County of Durham, for the Invention of "AN IMPROVEMENT ON THE WOODEN PLOUGH."

Quebec, dated 14th February, 1853.

BRIEF DESCRIPTION.

It consists of a twist from heel to point, different from the one now in use, in being more gradual in the front, or near the point, and having a greater twist in the heel part; in being constructed with the land side two inches lower than the mould side; in having different points for doing different kinds of work; and in having two different mould boards, one heavy and the other light.

See Drawing No. 387.

EZEKIEL BURLEY.

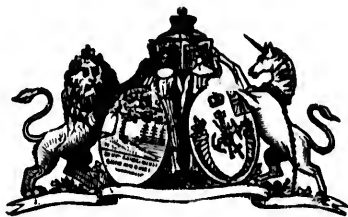
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A. D. 1853.—(CANADA.)—No. 388.

New and improved machine for Cutting Hay and Straw.

LETTERS PATENT to Peter Rowe Higley, of the Village of Oshawa, in the Township of Whitby, in the County of Ontario, Machinist, for the Invention of "A NEW AND IMPROVED MACHINE FOR CUTTING HAY AND STRAW."

Quebec, dated 7th March, 1853.

BRIEF DESCRIPTION.

It consists in the mode in which the power is conveyed from the pinion to the rollers, whereby the hay and straw is delivered to the action of the three knives affixed to the fly-wheel.

See Drawing No. 388.

PETER ROWE HIGLEY.

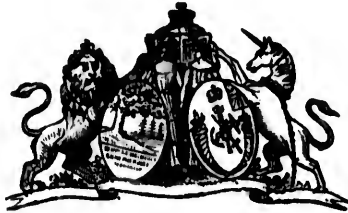
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A. D. 1853.—(CANADA.)—No. 389.

*New and useful machine for planing, tonguing, and
grooving Boards.*

LETTERS PATENT to Aretus Andrews Wilder, of the Township of
Sandwich, in the County of Essex, Engineer and Machinist, for
the Invention of "A NEW AND USEFUL MACHINE FOR PLANING,
TONGUING AND GROOVING BOARDS."

Quebec, dated 7th March, 1853.

BRIEF DESCRIPTION.

The machine is so constructed that boards to be planed, can be
clamped to the reciprocating beds, whilst being fed by the backward
motion of the planes, so that they will be free to move over the station-
ary bed plate upon which they are planed.

See Drawing No. 389.

ARETUS ANDREWS WILDER.

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A. D. 1853.—(CANADA.)—No. 390.

*New and useful improvement in the construction of
Lightning Rods.*

LETTERS PATENT to Daniel Mandigo, of the Village of St. John's,
in the County of Chambly, Machinist, for the Invention of "A
NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF LIGHT-
NING RODS."

Quebec, dated 16th February, 1853.

BRIEF DESCRIPTION.

It consists in the combination of the zinc plate with the brass hemispheres, and the junction of spire points and rods therein; together with the zinc rings, on the brass coupling, the points joining as before, and also in the method of fixing the attachments by means of the dove-tailed joint.

See Drawing No. 390.

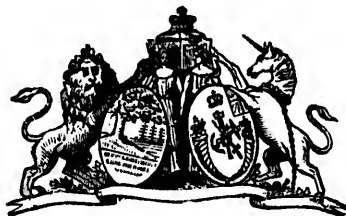
DANIEL MANDIGO.

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A. D. 1853.—(CANADA.)—No. 391.

*New and useful improvement in the construction of
Lightning Conductors.*

LETTERS PATENT to Albert Rounds, of the Village of St. John's, in the County of Chambly, Contractor and Master Builder, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF LIGHTNING CONDUCTORS."

Quebec, dated 16th February, 1853.

BRIEF DESCRIPTION.

The improvement consists in a solid copper spiral point; in two pairs of magnetic needles, composed of magnetized steel, and coated with silver; in placing copper and zinc rings in contact, at the upper point of the rod, immediately below the place where the point is screwed into it; in similar rings being placed at the first junction of the first and second lengths of rod; and in the rim of the glass isolator projecting over the iron work which holds the rod to the wall.

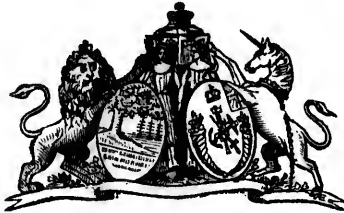
See Drawing No. 391.

ALBERT ROUNDS.

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A. D. 1853.—(CANADA.)—No. 392.

New and improved Running Gear for Vehicles.

LETTERS PATENT to Peter Murdoch, of the Township of Ancaster, in the County of Wentworth, Machinist, for the Invention of "NEW AND IMPROVED RUNNING GEAR FOR VEHICLES."

Quebec, dated 15th April, 1853.

BRIEF DESCRIPTION.

The gearing is constructed entirely of iron, except the tongue and coupling bolt, which are of wood. The tongue is of the usual shape and is attached by braces. The front end of the coupling pole is fastened to a cast iron plate by three bolts, the back end passes through the axle-tree loosely. The hind part of the gearing is attached to the coupling bolt by a crotch with a strap and bolt.

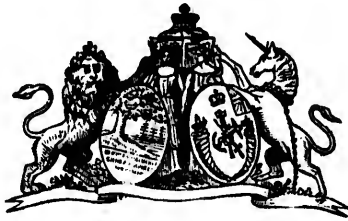
See Drawing No. 392.

PETER MURDOCH.

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A. D. 1853.—(CANADA.)—No. 393.

Portable Hot Air Furnace and Cooking Stove.

LETTERS PATENT to George Ansley, of the Village of Vienna, in the County of Elgin, Machinist, for the Invention of "A PORTABLE HOT AIR FURNACE AND COOKING STOVE."

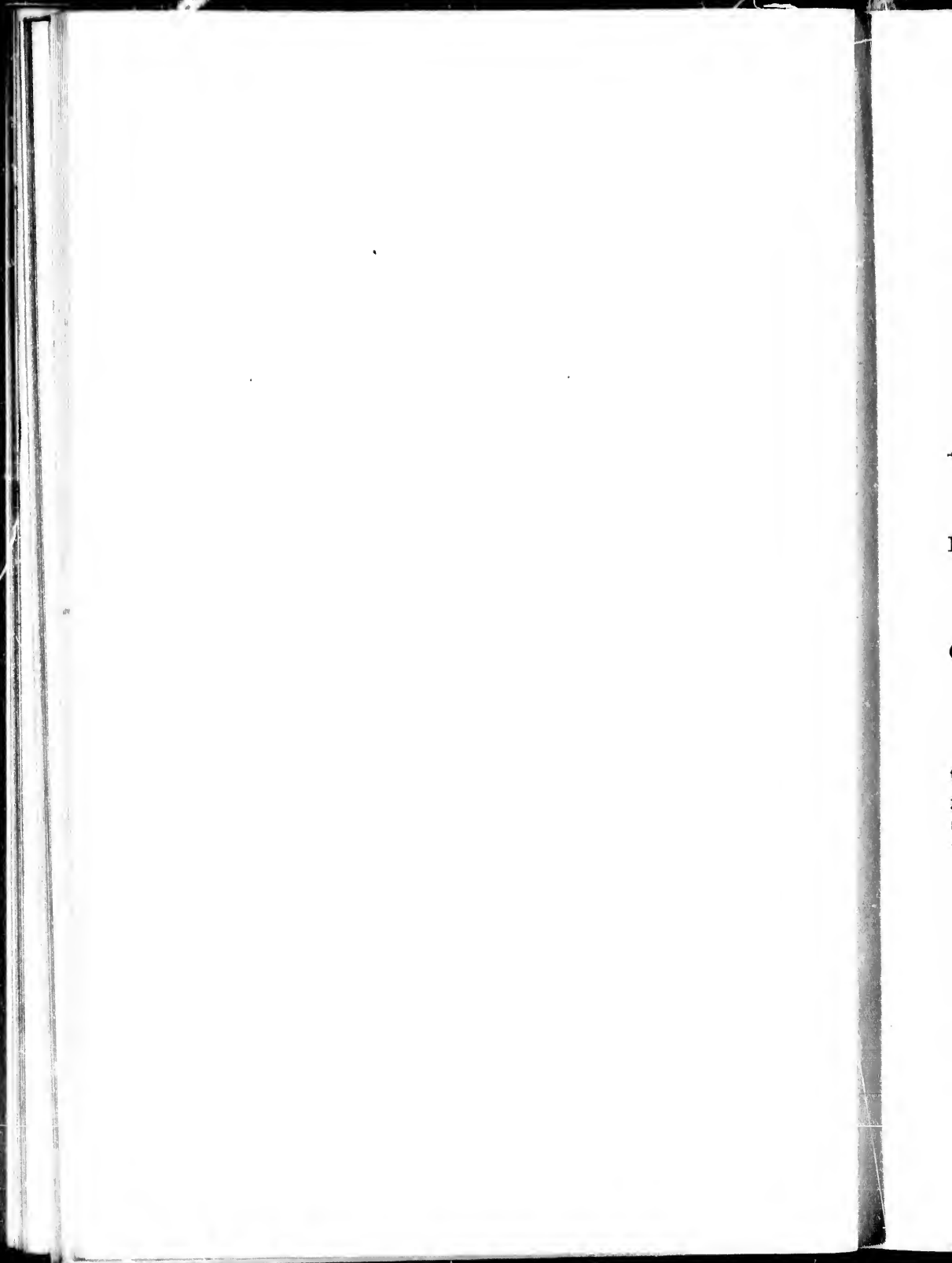
Quebec, dated 15th April, 1853.

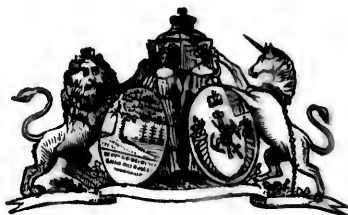
BRIEF DESCRIPTION.

The hot air furnace and cooking stove is made of cast iron lined with tin, between which there is a space filled with cement of plaster of Paris. In the department for hot air there are drums of sheet iron for the purpose of securing much heat with little fuel, and valves to admit air into the furnace, from whence it is conducted through the house by tin pipes.

See Drawing No. 393.

GEORGE ANSLEY.





A. D. 1853.—(CANADA.)—No. 394.

New and useful machine for crushing Grain, to be called Russell's Corn Crusher.

LETTERS PATENT to James Russell, of the Township of Ancaster, in the County of Wentworth, Esquire, for the Invention of "A NEW AND USEFUL MACHINE FOR CRUSHING GRAIN, TO BE CALLED RUSSELL'S CORN CRUSHER."

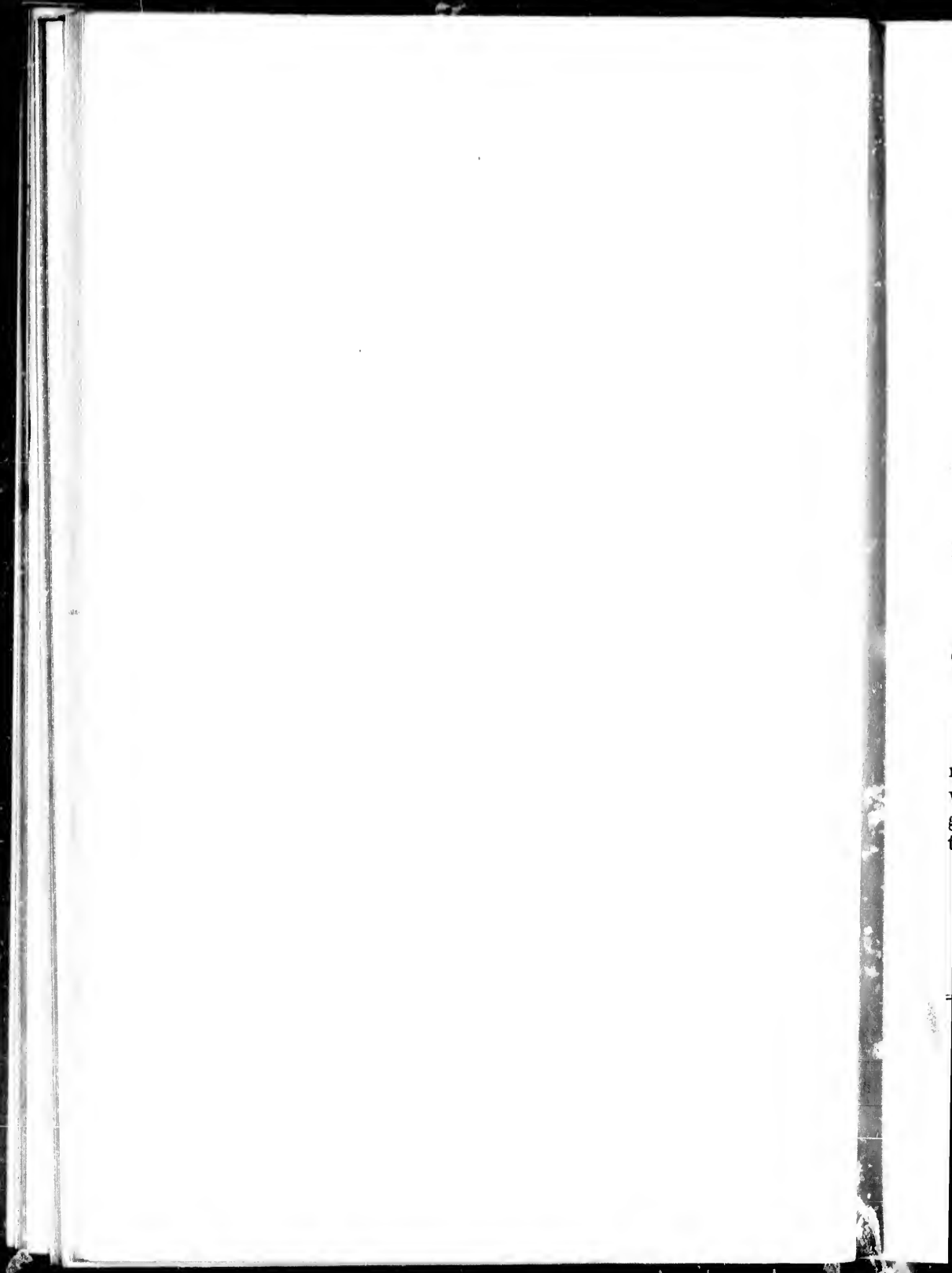
Quebec, dated 15th April, 1853.

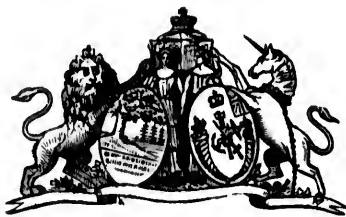
BRIEF DESCRIPTION.

It consists of a hopper to receive the grain; of a slide to regulate the quantity to be let down to two cylinders, which are made of cast iron, one being slightly grooved and the other plain; of a lever with a steel spring connected with the plain cylinder; and of a feeding roller with a pulley or wheel on the end of the grooved cylinder.

See Drawing No. 394.

JAMES RUSSELL.





A. D. 1853.—(CANADA.)—No. 395.

*New and improved Seed Drill, to be attached to a
Plough.*

LETTERS PATENT to Peter Murdoch, of the Township of Ancaster,
in the County of Wentworth, Machinist, for the Invention of
“A NEW AND IMPROVED SEED DRILL TO BE ATTACHED TO A
PLOWH.”

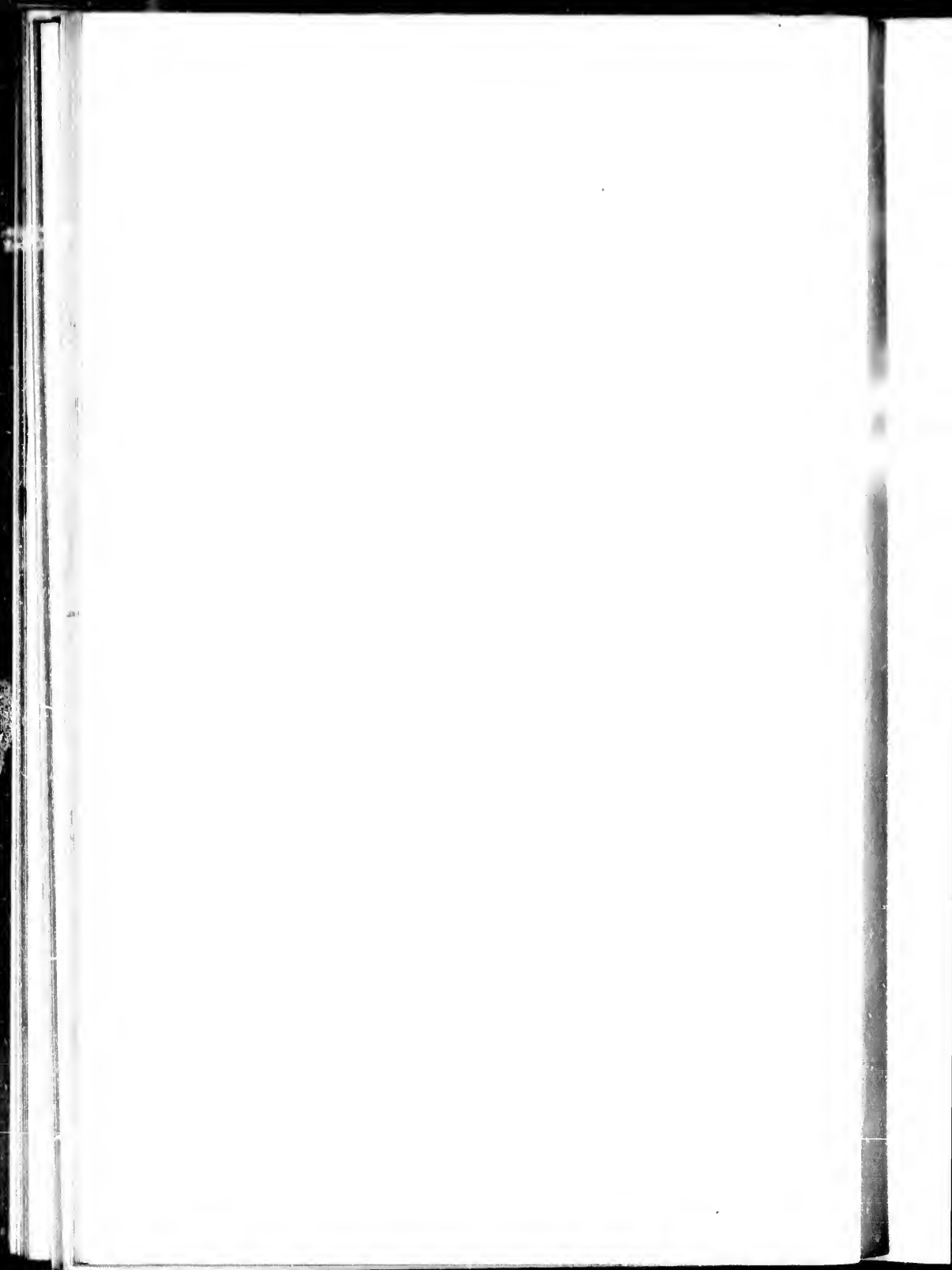
Quebec, dated 15th April, 1853.

BRIEF DESCRIPTION.

The drill consists of a hopper for the seed, with a cylinder for regulating the quantity to be dropped into the spout; and of a driving wheel on the axle with a grooved pulley, which corresponds with a groove in the cylinder, and around both passes a small chain giving the motion which deposits the seed.

See Drawing No. 395.

PETER MURDOCH.





A. D. 1853.—(CANADA.)—No. 396.

Improvement in the construction of Ploughs.

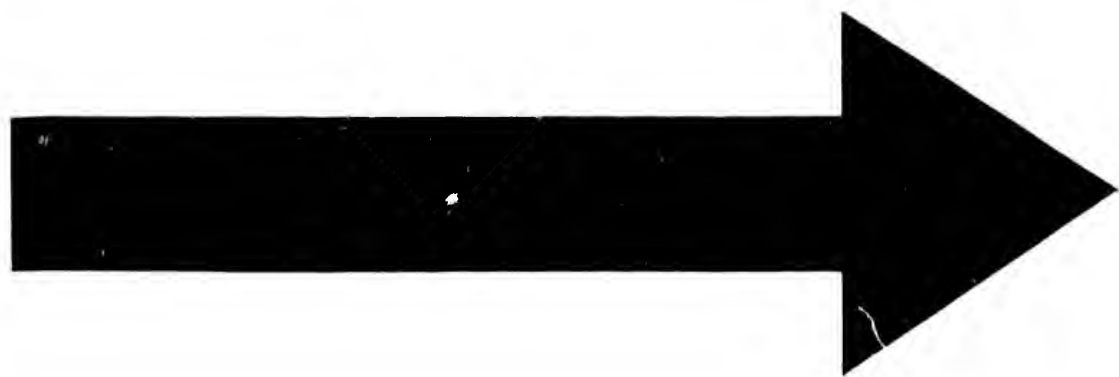
LETTERS PATENT to Charles Lemon, of the Township of Augusta,
in the County of Grenville, Esquire, for the Invention of "AN
IMPROVEMENT IN THE CONSTRUCTION OF PLOUGHS."

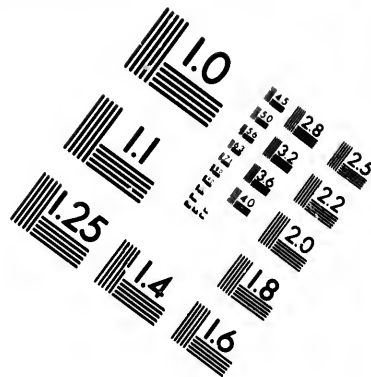
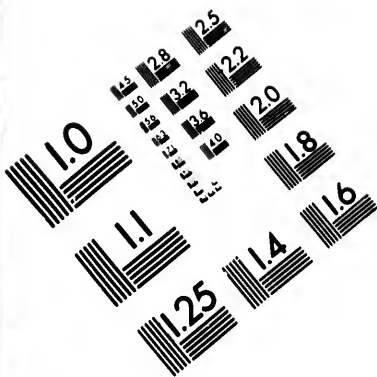
Quebec, dated 15th April, 1853.

BRIEF DESCRIPTION.

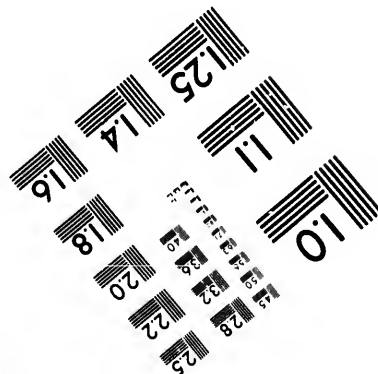
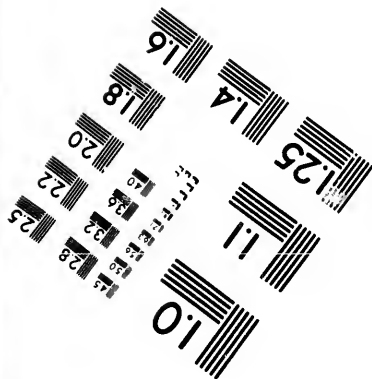
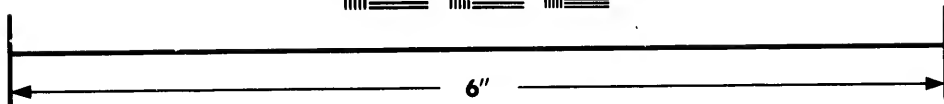
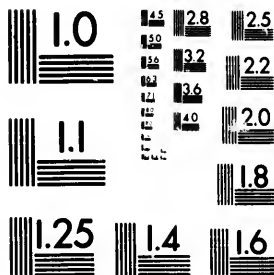
It consists in fastening the land side to the mould board, by means of a loop cast in the land side, which passes through a mortise in that part of the mould board called "the false land side," and is secured with a wooden wedge and an iron key; and in fastening the share or point to the mould board by an iron key, or pin, which passes through mortises in the share and mould board.

CHARLES LEMON.





**IMAGE EVALUATION
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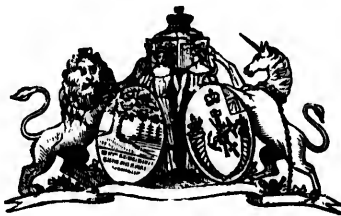
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A. D. 1853.—(CANADA.)—No. 397.

*New and useful process of manufacturing leather
from the skin of the Whale or Porpoise.*

LETTERS PATENT to Charles Hilaire Tetu, of the Parish of Rivière
Ouelle, in the County of Kamouraska, Merchant, for the Inven-
tion of "A NEW AND USEFUL PROCESS OF MANUFACTURING
LEATHER FROM THE SKIN OF THE WHALE OR PORPOISE."

Quebec, dated 16th April, 1853.

BRIEF DESCRIPTION.

After taking off the fat, the skin is put into luke-warm water for
twenty-four hours, then scraped several times and put into weak brine
for thirty-six hours, it is then parchment. The after process is that
usual for manufacturing ordinary leather.

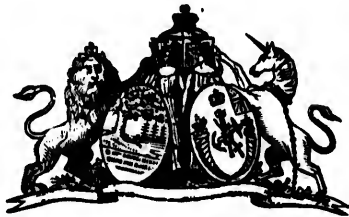
CHARLES HILAIRE TETU.

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A. D. 1853.—(CANADA.)—No. 398.

New and useful mode of manufacturing Whale and Porpoise Oils.

LETTERS PATENT to Charles Hilaire Tetu, of the Parish of Rivière Ouelle, in the County of Kamouraska, Merchant, for the Invention of "A NEW AND USEFUL MODE OF MANUFACTURING WHALE AND PORPOISE OILS."

Quebec, dated 16th April, 1853.

BRIEF DESCRIPTION.

That part of the fat of the porpoise adhering to the flesh, fit only for making oil of an inferior quality, should be taken off. The fat, for making oil of the first quality, is cut into small pieces, well cleaned in cold water, and boiled slowly for a short time in iron or copper boilers, during the melting the fibres and filaments are taken out. Previous to its being taken off the fire, cold water, or spirituous liquor, should be thrown in; the oil is then put into large wooden casks in a very warm place, when settled it is drawn off into other casks. For oil of second quality the same process should be gone through.

CHARLES HILAIRE TETU.

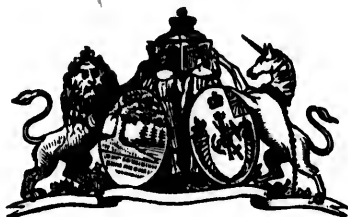
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A. D. 1853.—(CANADA.)—No. 399.

*Useful improvement in the construction of Threshing
Machines.*

LETTERS PATENT to Joseph Paradis, of the City of Montreal,
Machinist, for the Invention of "A USEFUL IMPROVEMENT IN
THE CONSTRUCTION OF THRESHING MACHINES."

Quebec, dated 29th April, 1853.

BRIEF DESCRIPTION.

The improvement consists in the teeth of the cylinder being set diagonally instead of square; in the sides, against which the cylinders run, being made of cast iron plates with flanges on the inner and out-sides; in a throat of any suitable material; in a curved case, under the cylinder; in the laths, used on the straw belt, being made of any material, shape, or distance apart; and without blocks at the end, a board being used instead, or a piece of leather or canvass; in the spider of the speed wheel being cast with flanges on it, and a rim round it; in a large washer to screw down over the ends of the arms of the wheel; and in a bolt at each arm of the spider. The speed wheel is to be made dishing instead of straight, and with five or more arms. The chain wheel to have notches, hollows, or holes in the rim. The boxes in which the main axle runs to be elevated to a horizontal position. The omission of the beaters, and in the manner of driving the straw belt.

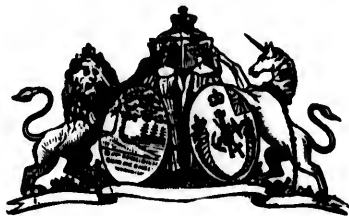
See Drawing No. 399.

JOSEPH PARADIS.

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A. D. 1853.—(CANADA.)—No. 400.

Improved Gun Barrel and Projectile.

LETTERS PATENT to William Consider Ruttan, of the Township of Norwich, in the County of Oxford, Machinist, for the Invention of "AN IMPROVED GUN BARREL AND PROJECTILE."

Quebec, dated 29th April, 1853.

BRIEF DESCRIPTION.

The improvement consists in the bore being of a triangular shape, designed to carry a triangularly shaped projectile of lead, or any metal, rounded at one end and conical.

See Drawing No. 400.

WILLIAM CONSIDER RUTTAN.

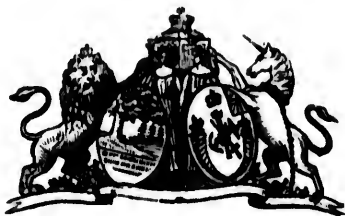
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A. D. 1853.—(CANADA.)—No. 401.

*Machine for sawing straight and crooked wood of
equal and unequal dimensions.*

LETTERS PATENT to Edmond Richard, of the Parish of St. Roch,
in the County of Quebec, Machinist, for the Invention of "A
MACHINE FOR SAWING STRAIGHT AND CROOKED WOOD OF EQUAL
AND UNEQUAL DIMENSIONS."

Quebec, dated 29th April, 1853.

BRIEF DESCRIPTION.

It consists of guides fastened by screws, and of a regulator which puts blocks into operation for receiving the wood ; of a carriage with slides placed under the blocks ; of a joint and a wheel at the extremity of every block. The saw is worked by a chain.

See Drawing No. 401.

EDMOND RICHARD.

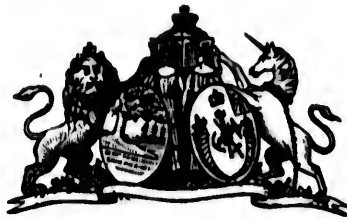
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A. D. 1853.—(CANADA.)—No. 402.

*Press or machine for the manufacture of Earthen-
ware Pipes and Draining Tiles.*

LETTERS PATENT to David Bell, of the Parish of St. Roch, in the
County of Quebec, Brickmaker, for the Invention of "A PRESS
OR MACHINE FOR THE MANUFACTURE OF EARTHENWARE PIPES
AND DRAINING TILES."

Quebec, dated 29th April, 1853.

BRIEF DESCRIPTION.

It consists in the mode of removing the piston head from the
cylinder, and thus making way for renewed and successive charges of
clay; and in the mode of affixing or attaching the cove, or mandrel,
at the lower extremity of the cylinder, by means of which the clay is
protruded in the tubular form required for cylindrical water pipes.

See Drawing No. 402.

DAVID BELL.

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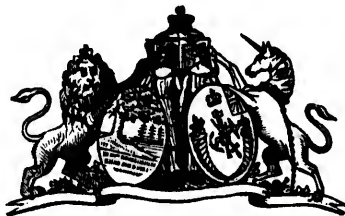
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A. D. 1853.—(CANADA.)—No. 403.

Machine for cutting Tobacco without moistening it.

LETTERS PATENT to Joseph Plamondon, of the City of Quebec,
Blacksmith, for the Invention of "A MACHINE FOR CUTTING
TOBACCO WITHOUT MOISTENING IT."

Quebec, dated 29th April, 1853.

BRIEF DESCRIPTION.

It consists of a machine having rollers by which the tobacco is gradually compressed, as it advances to the outer edge of the lips, where it is solid enough to allow of its being cut without the necessity of wetting, as is usually done.

See Drawing No. 403.

JOSEPH PLAMONDON.

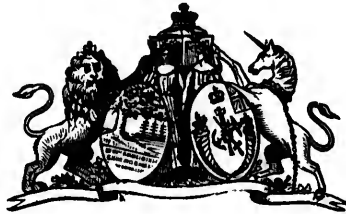
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A. D. 1853.—(CANADA.)—No. 404.

*New and useful improvement in the construction of
Fanning Mills.*

LETTERS PATENT to Daniel P. Brigham, of the Village of Oshawa,
in the County of Ontario, Machinist, for the Invention of "A
NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF
FANNING MILLS."

Quebec, dated 29th April, 1853.

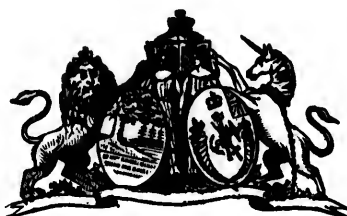
BRIEF DESCRIPTION.

It consists in the position of the gains in the shoe, whereby the
screens are placed in an inclined, instead of a horizontal position;
and in the introduction of the chess gain, and its lower half, wherein
the screens are to be placed.

See Drawing No. 404.

DANIEL P. BRIGHAM.

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A. D. 1853.—(CANADA.)—No. 405.

*Self-gigging, self-setting, and self-regulating Saw
Mill.*

LETTERS PATENT to Asaph Buck Kent, of the Township of West
Oxford, in the County of Oxford, for the Invention of "A SELF-
GIGGING, SELF-SETTING, AND SELF-REGULATING SAW MILL."

Quebec, dated 29th April, 1853.

BRIEF DESCRIPTION.

It consists in a certain right angled lever ; the arrangement of the levers, bars, and rope, for the gigging apparatus ; the right angled lever with notched sides ; and the pin for the setting apparatus ; the arrangement of the lever with weights ; certain other levers ; a bridge ; and the right angled hook for regulating the steam.

See Drawing No. 405.

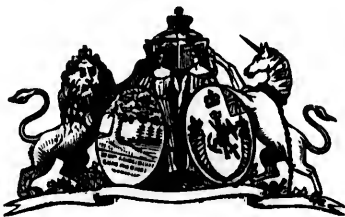
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A D. 1853.—(CANADA.)—No. 406.

Double Reflector for baking purposes.

LETTERS PATENT to John Dean, of the Village of Vienna, in the County of Elgin, Saddler, for the Invention of "A DOUBLE REFLECTOR FOR BAKING PURPOSES."

Quebec, dated 29th April, 1853.

BRIEF DESCRIPTION.

It consists of a tin box having eight angles, a fire box of cast or sheet iron inside, in which the fire is kindled, and from whence the heat spreads, and is reflected back upon the substance to be baked.

See Drawing No. 406.

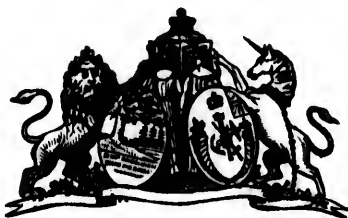
JOHN DEAN.

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A. D. 1853.—(CANADA.)—No. 407.

Improved Ladder.

LETTERS PATENT to Zenas Everitt, of the Township of Flambo-rough West, in the County of Wentworth, Yeoman, for the Invention of "AN IMPROVED LADDER."

Quebec, dated 12th May, 1853.

BRIEF DESCRIPTION.

It consists in a chair, or platform, surmounting the ladder, also of poles, and supporters, longer than the ladder, broadened at the top, and bevelled, or prepared to rest against each other, through holes in which a horizontal bar passes.

See Drawing No. 407.

ZENAS EVERITT.

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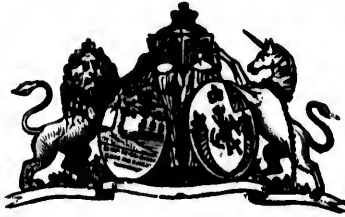
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A. D. 1853.—(CANADA.)—No. 408.

*New and useful improvement in the construction of
Reins or Bridles, to be called "The Duplex
Safety Rein."*

LETTERS PATENT to William Antrobus Holwell, of the City of
Quebec, Store Keeper of Her Majesty's Ordnance, for the Inven-
tion of "A NEW AND USEFUL IMPROVEMENT IN THE CONSTRU-
TION OF REINS, OR BRIDLES, TO BE CALLED 'THE DUPLEX
SAFETY REIN.'"

Quebec, dated 12th May, 1853.

BRIEF DESCRIPTION.

It consists in the adaptation of a connecting piece, or spring, of
India rubber, or other elastic substance, to reins or bridles used for
riding or driving, so as to enable the rider, or driver, to bear either
upon the snaffle bit, or check ring of the bit, or upon the curb, at
pleasure.

See Drawing No. 408.

WILLIAM ANTROBUS HOLWELL.

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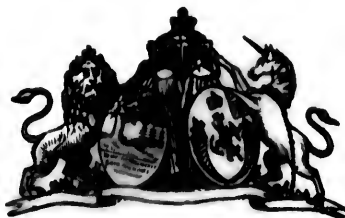
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A. D. 1853.—(CANADA.)—No. 409.

*New and improved carriage and feeding and gigging
back works for steam and water Saw Mills.*

LETTERS PATENT to Daniel Smith Merritt, of the Township of
Houghton, in the County of Norfolk, Blacksmith, for the Inven-
tion of "A NEW AND IMPROVED CARRIAGE AND FEEDING, AND
GIGGING BACK WORKS, FOR STEAM AND WATER SAW MILLS."

Quebec, dated 11th May, 1853.

BRIEF DESCRIPTION.

It consists in the carriage being only about one-third the weight of
those now in use; in the omission of the gig wheel, in the case of
water mills, and the substitution of the cog, or band wheel, in place
thereof, the same being thrown in and out of gear by a lever which
reverses the motion of the carriage in gigging back.

See Drawing No. 409.

DANIEL SMITH MERRITT.

New

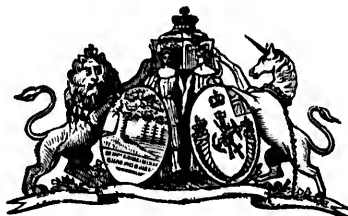
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A. D. 1853.—(CANADA.)—No. 410.

*New and improved Cant Hook, for piling, and
otherwise disposing of Railway Iron Bars.*

LETTERS PATENT to Joseph Woods, of the Town of Chatham, in
the County of Kent, Esquire, for the Invention of "A NEW AND
IMPROVED CANT HOOK, FOR PILING, AND OTHERWISE HANDLING
AND DISPOSING OF RAILWAY IRON BARS."

Quebec, dated 28th May, 1853.

BRIEF DESCRIPTION.

It consists of a cant hook, made of wrought iron, and so forged and
shaped as to receive one portion of the crown of the railway bar, the
lower extremity resting against the flange of the bar; also of a hook,
so shaped on the under side as to fit a portion of the said crown. The
upper end of the lever is used for turning the bar, by inserting it into
holes through the waist.

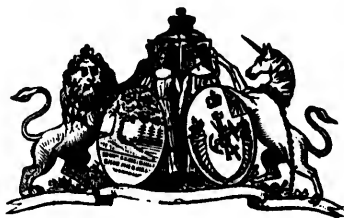
See Drawing No. 410.

JOSEPH WOODS.

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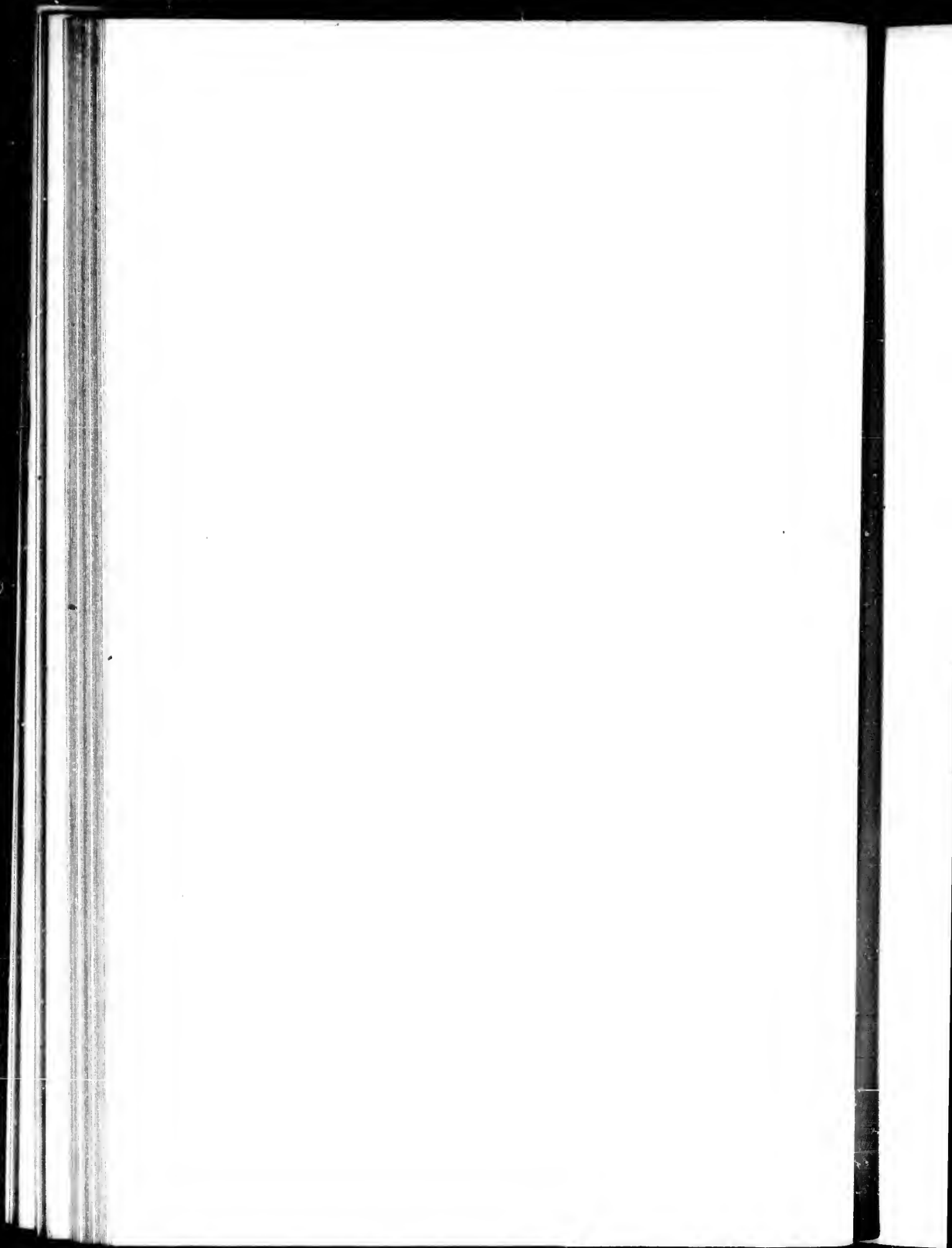
A. D. 1853.—(CANADA.)—No. 411.

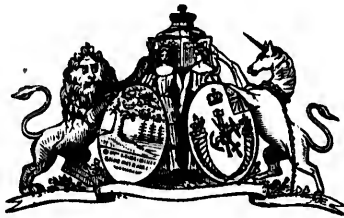
Improved mode of constructing Steam Engines.

LETTERS PATENT to Benjamin F. Tibbets, of the City of Quebec,
Engineer, for the Invention of "AN IMPROVED MODE OF CON-
STRUCTING STEAM ENGINES."

Quebec, dated 11th June, 1853.

Extended to Upper Canada, under 14 and 15 Vict. Cap. See No.
85 first volume.





A. D. 1853.—(CANADA.)—No. 412.

Limited Horse Swing.

LETTERS PATENT to Nirum Wildman Rockwell, of the Township
of Farnham, in the District of Montreal, for the Invention of
"A LIMITED HORSE SWING."

Quebec, dated 11th June, 1853.

Extended to Upper Canada' under 14 and 15 Vict. Cap. See No.
140 first volume.

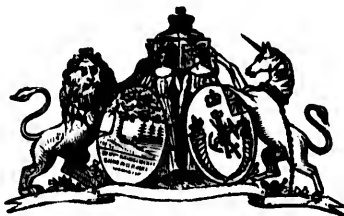
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A. D. 1853.—(CANADA.)—No. 413.

*New and useful improvements in the construction of
Harvesting Machines.*

LETTERS PATENT to Charles Wesley Smith, of the Township of
Townsend, in the County of Norfolk, for the Invention of
“NEW AND USEFUL IMPROVEMENTS IN THE CONSTRUCTION OF
HARVESTING MACHINES.”

Quebec, dated 20th June, 1853.

BRIEF DESCRIPTION.

They consist in the arrangement of the pinion shaft, so that the machine can be constructed with single instead of double gearing, placing the front timber of the frame at an angle with the other timbers different from a right angle, forming a V shaped guard tooth, with either straight or curved sides, attaching the platform to the cutter by means of bolts, or other expedients. And in placing underneath the tongue a thin wedge, of wood or other material, for elevating the front end of the frame for reaping, or depressing it for mowing.

See Drawing No. 413.

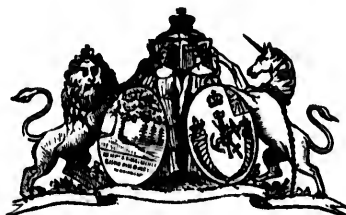
CHARLES WESLEY SMITH.

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A. D. 1853.—(CANADA.)—No. 414.

Improved Mould Board for Ploughs.

LETTERS PATENT to John Morley, of the Village of Thorold, in the County of Welland, Manufacturer of Agricultural Implements, for the Invention of "AN IMPROVED MOULD BOARD FOR PLOUGHS."

Quebec, dated 20th June, 1853.

BRIEF DESCRIPTION.

It consists in providing a second circle on the mould board, which causes the furrow to turn unbroken like a wave.

See Drawing No. 414.

JOHN MORLEY.

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A. D. 1853.—(CANADA.)—No. 415.

File Cutting Machine.

LETTERS PATENT to Jackson McIntyre, of the City of Kingston,
Machinist, for the Invention of "A FILE CUTTING MACHINE."

Quebec, dated 20th June, 1853.

BRIEF DESCRIPTION.

It consists in the combination of the weight, cam slide, and cutter levers, with the carriage, chisel, blocks, vertical racks, right and left hand screws, moveable sockets, and revolving chisel holders, for the purpose of cutting files by pressure.

See Drawing No. 415.

JACKSON McINTYRE.

New

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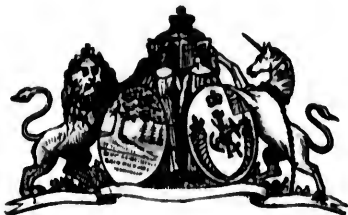
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A. D. 1853.—(CANADA.)—No. 416.

*New and useful improvement in the construction of
Threshing Machines.*

LETTERS PATENT to Charles Seraphin Rodier, of the City of
Montreal, Builder, for the Invention of "A NEW AND USEFUL
IMPROVEMENT IN THE CONSTRUCTION OF THRESHING MACHINES."

Quebec, dated 20th June, 1853.

BRIEF DESCRIPTION.

The improvement consists in the teeth having two faces, and on
each face six declines, or slides, diminishing gradually to their extremity.

See Drawing No. 416.

CHARLES SERAPHIN RODIER.

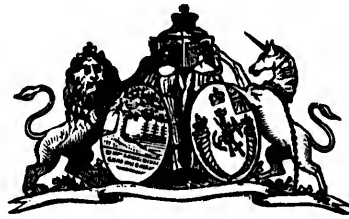
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A. D. 1853.—(CANADA.)—No. 417.

*New and useful improvement in the construction of
Ploughs.*

LETTERS PATENT to John W. Armstrong, of the Township of Eramosa, in the County of Wellington, Farmer, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF PLOUGHS."

Quebec, dated 21st June, 1853.

BRIEF DESCRIPTION.

It consists in the handle or stilt of the plough being in the same line with the sole, and the sheath or head receding one half inch from the perpendicular, between the sole and the beam, on the left hand side of the plough.

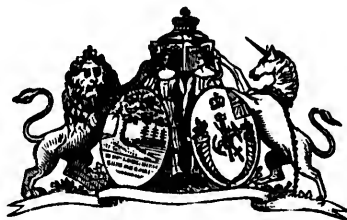
See Drawing No. 417.

JOHN W. ARMSTRONG.

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A. D. 1853.—(CANADA.)—No. 418.

Improved Threshing Machine.

LETTERS PATENT to John Handford, of the Township of Sandwich, in the County of Essex, Machinist, for the Invention of "AN IMPROVED THRESHING MACHINE."

Quebec, dated 21st June, 1853.

BRIEF DESCRIPTION.

It consists in the construction of the cylinder B, fig. 2; in the manner in which the power is applied; in the construction of the concave; in the adjustability of the concave; in the employment of half round bars of iron on the concave; in the angle at which they are set; and in having the concave loose, for the purpose of adjustability by means of screws, or any other known method.

See Drawing No. 418.

JOHN HANDFORD.

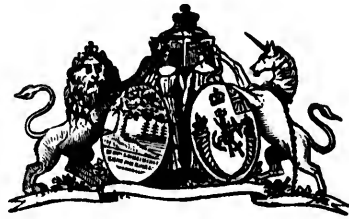
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A. D. 1853.—(CANADA.)—No. 419.

*New and useful machine for Sawing and Planing
all Lumber by one operation.*

LETTERS PATENT to Alexander Solomon Walbridge, of the Township of Stanbridge, in the District of Montreal, Millwright, for the Inventien of "A NEW AND USEFUL MACHINE FOR SAWING AND PLANING ALL LUMBER BY ONE OPERATION."

Quebec, dated 20th July, 1853.

BRIEF DESCRIPTION.

It consists in a machine for sawing with a circular saw, and planing by one operation, all trees in their natural state cut into logs, and all kinds of hewed or flatted timber; or to saw the same without planing them, or to plane them without sawing them; and to saw, plane, feed, gig-back, and set all thickness by itself.

See Drawing No. 419.

ALEXANDER SOLOMON WALBRIDGE.

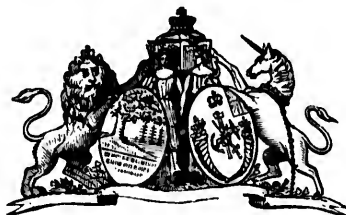
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A. D. 1853.—(CANADA.)—No. 420.

Improvement in the manufacture of Metallic Carriage Springs, to be called "The Urquhart Elliptic Spring."

LETTERS PATENT to George Urquhart, of the Township of Eaton, in the District of St. Francis, Smith, for the Invention of "AN IMPROVEMENT IN THE MANUFACTURE OF METALLIC CARRIAGE SPRINGS, TO BE CALLED 'THE URQUHART ELLIPTIC SPRING.'"

Quebec, dated 20th July, 1853.

BRIEF DESCRIPTION.

The improvement consists in a spring, made of spring steel, either welded, brazed, bolted, or otherwise firmly united, where the joint usually is.

See Drawing No. 420.

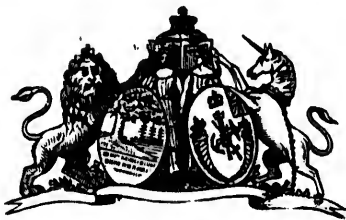
GEORGE URQUHART.

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A. D. 1853.—(CANADA.)—No. 421.

Metallic Burial Case.

LETTERS PATENT to Calvin Palmer Ladd, of the City of Montreal,
Engineer, for the Invention of "A METALLIC BURIAL CASE."
Quebec, dated 8th July, 1853.

BRIEF DESCRIPTION.

It consists in the manufacturing of coffins of cast or raised metal, having a double shield of cast or wrought metal, in shape corresponding nearly with the human form; in combination with the two nearly equal parts, and united horizontally.

See Drawing No. 421.

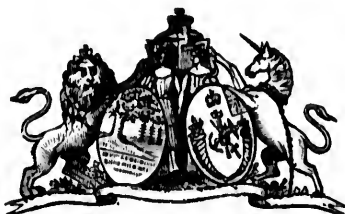
CALVIN PALMER LADD.

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A. D. 1853.—(CANADA.)—No. 422.

Paddle Box Tubular Raft.

LETTERS PATENT to Robert Thomas, of the City of Toronto,
Master Mariner, for the Invention of "A PADDLE BOX TUBULAR
RAFT."

Quebec, dated 19th July, 1853.

BRIEF DESCRIPTION.

It consists in the conversion of the face of the paddle box, or other parts of steam, or other vessels, into tubular rafts; or the attachment of these rafts thereto.

See Drawing No. 422.

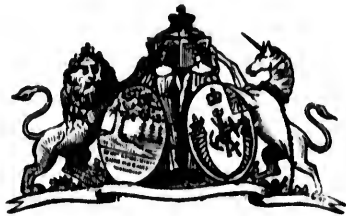
ROBERT THOMAS.

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A. D. 1853.—(CANADA.)—No. 423.

Self-adjusting Paddle Wheel.

LETTERS PATENT to William John Spence, of the City of Quebec,
Printer, for the Invention of "A SELF-ADJUSTING PADDLE
WHEEL."

Quebec, dated 26th July, 1853.

BRIEF DESCRIPTION.

It consists in the maintaining of the paddles in parallel planes,
during the rotation of the wheel, which is affected by means of a
suspension ring or rings.

See Drawing No- 423.

WILLIAM JOHN SPENCE.

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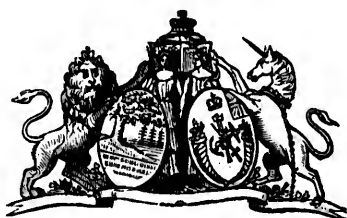
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A. D. 1853.—(CANADA.)—No. 424.

New and improved apparatus for producing Gas from resin, oil, and other substances of like nature, and from the decomposition of water.

LETTERS PATENT to Alexis Robitaille, of the City of Quebec, Tinsmith, for the Invention of "A NEW AND IMPROVED APPARATUS FOR PRODUCING GAS FROM RESIN, OIL, AND OTHER SUBSTANCES OF LIKE NATURE, AND FROM THE DECOMPOSITION OF WATER."

Quebec, dated 2nd September, 1853.

BRIEF DESCRIPTION.

It consists, firstly, in the particular mode of constructing the several parts of the said apparatus. Secondly, in the stand or false cover, *d*, shewn in the figure B, in drawing No. 1, and modification of such. Thirdly, in the use of steel scraps in the retort, figure D, in which the water gas is produced, and the peculiar mode in which the said water gas is mixed with the oil, or other material, used in the retort in figure B. Fourthly, in the purifiers shewn in figures E and F, in drawing No. 1, and to any modification of the same. Fifthly, in the peculiar contrivance by which any superabundant pressure in the retort for producing the water gas is at once got rid of. Sixthly, in the gasometer of caoutchouc with a frame work of metal, or wood, and the contrivances shewn in drawing No. 2, with variations. Seventhly, in the gasometer made of zinc and wood, represented by figure O of drawing No. 2.

See Drawing No. 424.

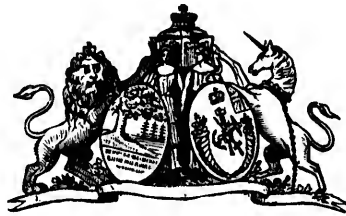
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A. D. 1853.—(CANADA.)—No. 425.

Improvement in the mode of constructing the Double Reflector for baking purposes.

LETTERS PATENT to John Dean of the Village of Vienna, in the County of Elgin, Saddler, for the Invention of "AN IMPROVEMENT IN THE MODE OF CONSTRUCTING THE DOUBLE REFLECTOR FOR BAKING PURPOSES, INVENTED BY HIM AND FOR WHICH LETTERS PATENT WERE GRANTED TO HIM ON THE 29TH APRIL, 1853."

Quebec, dated 7th September, 1853.

BRIEF DESCRIPTION.

The improvement consists in the addition of the door, by which two tiers of baking pans can now be used.

JOHN DEAN.

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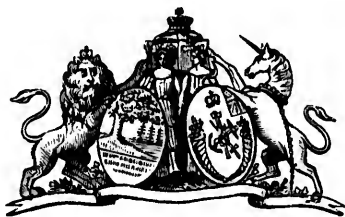
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A. D. 1853.—(CANADA.)—No. 426.

New and useful machine for Planting Potatoes.

LETTERS PATENT to Alexander Anderson, of the Township of Markham, in the County of York, Carpenter, for the Invention of "A NEW AND USEFUL MACHINE FOR PLANTING POTATOES."

Quebec, dated 15th September, 1853.

BRIEF DESCRIPTION.

It consists in a machine so constructed as to plant potatoes in drills, having a hopper in which the whole potato is put, from whence it proceeds to conductors, in its passage to which it is cut by a knife into two parts. The cut parts are then conveyed from the conductors, through a leather tube, to a hollow in the share which makes the drill.

See Drawing No. 426.

ALEXANDER ANDERSON.

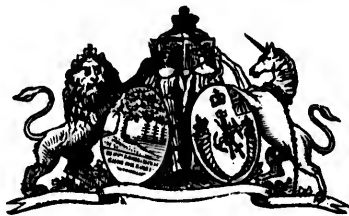
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A. D. 1853.—(CANADA.)—No. 427.

*New and useful apparatus for crushing, drying,
and otherwise preparing potatoes and other
vegetable substances, as well as fruits and meats,
for food.*

LETTERS PATENT to Massa Branch Southwick, of the Parish of
St. Hilaire, in the District of Montreal, Esquire, for the Invention
of "A NEW AND USEFUL APPARATUS FOR CRUSHING, DRYING,
AND OTHERWISE PREPARING POTATOES AND OTHER VEGETABLE
SUBSTANCES, AS WELL AS FRUITS AND MEATS FOR FOOD."

Quebec, dated 15th September, 1853.

BRIEF DESCRIPTION.

The material to be dried is put into a trough, or working circular
table, on which it is crushed. During the process of crushing, a
circular rake, called a doffer, keeps the pulp in a continuous action,
and is employed to remove the skins or peels. The drying is performed
by the introduction of a current of heated air through the mass of
pulp, during the process of crushing.

See Drawing No. 427.

MASSA BRANCH SOUTHWICK.

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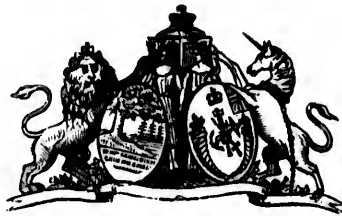
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A. D. 1853.—(CANADA.)—No. 428.

*New and useful improvement in the manufacture of
a Straw Cutting Machine.*

LETTERS PATENT to Lewis Reese, of the Village of Oshawa, in
the County of Ontario, Turner, for the Invention of "A NEW
AND USEFUL IMPROVEMENT IN THE MANUFACTURE OF 'A STRAW
CUTTING MACHINE.'"

Quebec, dated 19th September, 1853.

BRIEF DESCRIPTION.

It consists in the application of the treadle to the fly-wheel and the
presses, so that the knives act uniformly with the presses. The person
in attendance having both hands at liberty to regulate the feed.

See Drawing No. 428.

LEWIS REESE.

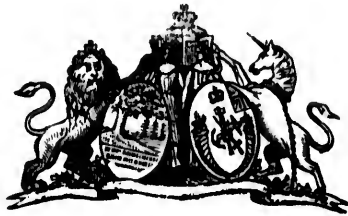
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A. D. 1853.—(CANADA.)—No. 429.

*New and useful improvement in the construction of
the Canadian Plough.*

LETTERS PATENT to Alexander Turnbull, of the Town of Dundas,
in the County of Wentworth, Machinist, for the Invention of "A
NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF THE
CANADIAN PLOUGH."

Quebec, dated 15th October, 1853.

BRIEF DESCRIPTION.

It consists in the standard B, being of the same piece with the land
side; and in that part of the land side, called the "head," being
prepared by a recess on the under surface for a share of wrought iron.
The land side is also thicker in front tapering to the back.

See Drawing No. 429.

ALEXANDER TURNBULL.

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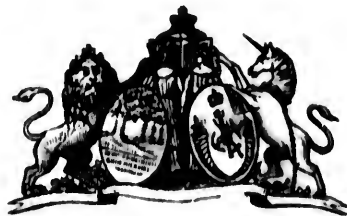
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A. D. 1853.—(CANADA.)—No. 430.

New and useful apparatus for, and method of, desiccating lumber and other materials.

LETTERS PATENT to Nathan Buchanan, of the City of Montreal, Draughtsman, for the Invention of "A NEW AND USEFUL APPARATUS FOR, AND METHOD OF DESICCATING LUMBER AND OTHER MATERIALS."

Quebec, dated 1st October, 1853.

BRIEF DESCRIPTION.

It consists in the combination of the furnace, air chamber, blower, and kiln, so that nearly the whole of the heat generated by the combustion of the fuel is applied to the desired purpose of desiccation. The blower is used for the combined purpose of creating a draft, and of forcing the heated air through the air chamber and air passage into the kiln. The lumber, or other materials in the kiln, require to be so arranged that the heated air may pass through and over every part of the materials to be desiccated.

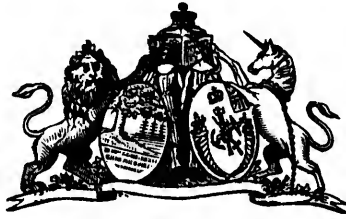
See Drawing, No. 430.

NATHAN BUCHANNAN.

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A. D. 1853.—(CANADA.)—No. 431.

Improvements in the construction of Ploughs.

LETTERS PATENT to Isaac Modeland, of the Township of Chinguacousy, in the County of Peel, Mechanic, for the Invention of
"IMPROVEMENTS IN THE CONSTRUCTION OF PLOUGHS."

Quebec, dated 19th September, 1853.

BRIEF DESCRIPTION.

It consists in the heel-plate being so constructed as to be renewed, when worn out, without the total loss of the land side, and to be attached to the landside by iron bolts. The mould board to be two feet nine inches in length, and one foot in depth, with a groove or square piece taken out to admit the plough beam, and so constructed as to turn a furrow evenly of nine inches wide and six inches deep.

See Drawing, No. 431.

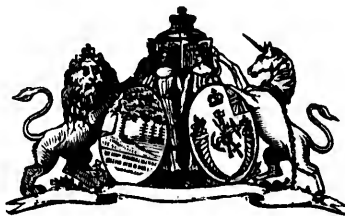
ISAAC MODELAND.

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A. D. 1853.—(CANADA.)—No. 432.

New and improved Excavator for cutting or excavating and moving clay, sand, gravel, or other substances.

LETTERS PATENT to Robert Emmet Stephens, of the Town of Owen Sound, in the County of Grey, Shipowner, for the Invention of "A NEW AND IMPROVED EXCAVATOR FOR CUTTING OR EXCAVATING AND MOVING, CLAY, SAND, GRAVEL, OR OTHER SUBSTANCES."

Quebec, dated 7th October, 1853.

BRIEF DESCRIPTION.

It consists in the application of the auger or screw working in a trough or bed, upon a moveable inclined plane for the purpose of cutting or excavating and moving clay, sand, gravel, or any other substance.

See Drawing No. 432.

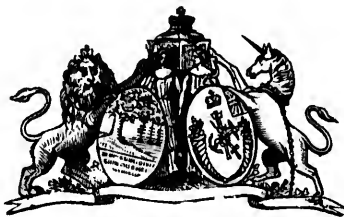
ROBERT EMMET STEPHENS.

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A. D. 1853.—(CANADA.)—No. 433.

Improved Machine for making Bricks.

LETTERS PATENT to John Parsons, of the City of Toronto,
Gentleman, for the Invention of "AN IMPROVED MACHINE FOR
MAKING BRICKS."

Quebec, dated 6th October, 1853.

BRIEF DESCRIPTION.

The improvements consist in the arrangement of the lower front part of the receiver with slotting holes at the end, in connection with the bolts and springs; also of the level wheel and pinion, in connection with connecting rod slide, regulating nut, and handle with screw and guide rod, and the guide rod which is affixed to the press. In the arrangement of the follower connected with the springs by a strap or otherwise. In the cog wheel and rack attached to the under part of the follower driven by pullies and strap. In the rollers as used in connection with the two pulley wheels, and band to carry forward the moulds with the bricks. In the arms, with pieces of plate iron or other material at the ends, used to carry round the clay when put into the box, and called a separator. Also in the tram or rail round the top of the machine in connection with the wheel or roller.

See Drawing No. 433.

JOHN PARSONS.

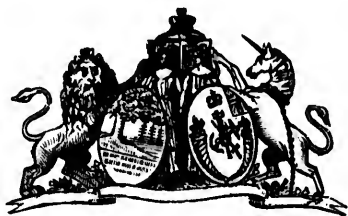
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A. D. 1853.—(CANADA.)—No. 434.

*Apparatus for the purpose of cleansing or drawing
off Beer from the fermenting tuns.*

LETTERS PATENT to John Parsons, of the City of Toronto, Gentleman, for the Invention of "AN APPARATUS FOR THE PURPOSE OF CLEANSING OR DRAWING OFF BEER FROM THE FERMENTING TUNS."

Quebec, dated 13th October, 1853.

BRIEF DESCRIPTION.

It consists in the combination of the pipe, or hose, connected with the stop-cock in the tun at one end, and at the other end with the ball and cock, used for conducting the beer into the vessel in which it is kept, on a level with the top, or bung holes, of the casks. In the vessel with the stop-cock connected with the pipe or hose, used for conducting the beer into the casks through the stop-cocks, which are connected with the said pipe, or hose, by couplings or otherwise. Also in the valve to be used when adopting close fermentation. The combination of the pipe or hose, ball and cock, couplings, stop and other cocks may be used for cleansing and filling beer, or for similar purposes for any kind of liquids. The valve may also be used in any manufactories it may be required in.

See Drawing No. 434.

JOHN PARSONS.

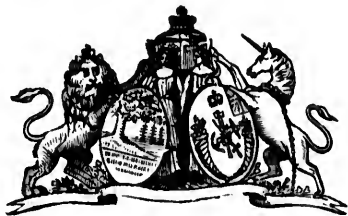
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A. D. 1853.—(CANADA.)—No. 435.

*Improved Machinery for Arresting the Progress
of Railway Trains.*

LETTERS PATENT to Dalrymple Crawford, of the City of Toronto,
Manufacturer, for the Invention of "IMPROVED MACHINERY FOR
ARRESTING THE PROGRESS OF RAILWAY TRAINS."

Quebec, dated 15th October, 1853.

BRIEF DESCRIPTION.

It consists in a connecting rod, or chain, attached from the brake machinery of one carriage, to that of another, and the use of a spring or springs to regulate the amount of pressure to be applied to the whole of each carriage, and to overcome the irregularity of distance of connection between the carriages, caused by the spring, attached to the coupling brake, being more or less acted on; and which means of connecting the brake may be made to bear by the intervention of levers, pulleys, or screws.

See Drawing 25. 435.

DALRYMPLE CRAWFORD.

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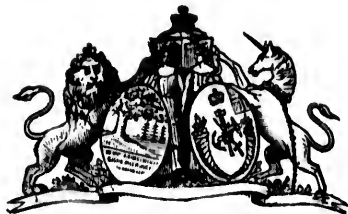
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A. D. 1854.—(CANADA.)—No. 436.

*New and Useful Improvement in the Present Mode
of Constructing Churns.*

LETTERS PATENT to Jacob Wood, of the Village of Oshawa, in
the Township of Whitby, in the County of Ontario, Clothier, for
the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE
PRESENT MODE OF CONSTRUCTING CHURNS."

Quebec, dated 2nd February, 1854.

BRIEF DESCRIPTION.

The power applied to the dasher in the churn moves in a vertical
direction, whilst the body of the churn turns in a rotatory manner,
and by so combining the two motions, the cream is quickly converted
into butter.

See Drawing No. 436.

JACOB WOOD.

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A. D. 1854.—(CANADA.)—No. 437.

*New and Useful Improvement in the construction
of Churns.*

LETTERS PATENT to Lewis Amsbary, of the Village of Oshawa,
in the Township of Whitby, in the County of Ontario, Black-
smith, for the Invention of "A NEW AND USEFUL IMPROVEMENT
IN THE CONSTRUCTION OF CHURNS."

Quebec, dated 2nd February, 1854.

BRIEF DESCRIPTION.

There are two dashers instead of one, and the dashers are formed in
such a manner as to be at an angle of about seventy-two degrees with
the bottom of the churn.

See Drawing No. 437.

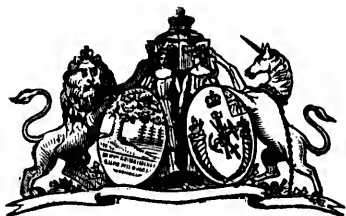
LEWIS AMSBARY.

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A. D. 1854.—(CANADA.)—No. 438.

The Prize Hot Air and Cooking Furnace.

LETTERS PATENT to Stanislas Kwasneski of the City of Montreal,
Manufacturer of Hot Air Furnaces, for the Invention of "THE
PRIZE HOT AIR AND COOKING FURNACE."

Quebec, dated 8th February, 1854.

BRIEF DESCRIPTION.

There are four openings traversing the furnace, (which may be of iron or other metal, and enclosed in brick work, through and through,) and drawing the cold air first through one and then through the other, and so on upwards, thereby creating a greater heat than by the ordinary furnaces at present in use.

See Drawing No. 438.

STANISLAS KWASNESKI.

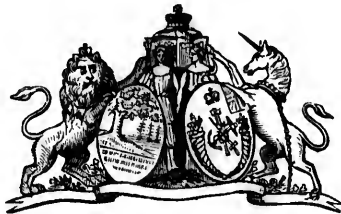
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A. D. 1854.—(CANADA.)—No. 439.

An Improved Method for running Paddle Wheels.

LETTERS PATENT to George Dunham, of the Town of Brockville,
in the County of Leeds, Physician, for the Invention of "AN
IMPROVED METHOD OF RUNNING PADDLE WHEELS."

Quebec, dated 11th February, 1854.

BRIEF DESCRIPTION.

It consists in an improved method of running paddle wheels, of nearly the common construction, horizontally, or nearly so, two-thirds of which wheels, more or less, are to be enclosed in the box or case within the hull of the vessel; and in the improved hub.

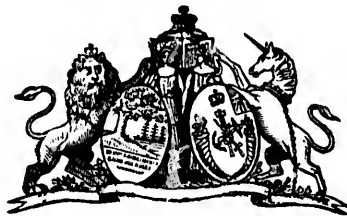
See Drawing No. 439.

GEORGE DUNHAM.

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A. D. 1854.—(CANADA.)—No. 440.

An Improved Elevating Bedstead.

LETTERS PATENT to Jacob Thaddeus Forbes, of the Township of Haldimand, and in the County of Northumberland, for the Invention of "AN IMPROVED ELEVATING BEDSTEAD."

Quebec, dated 2nd February, 1854.

BRIEF DESCRIPTION.

The bottom of the bedstead is made of inch boards, or a frame of wood, or iron, made in six pieces and connected by hinges, so that number one, for the head, rises up; number two forms the seat; number three swings down for the legs; number four swings up for the feet to rest upon; number five is a night stool; and number six is a small stationary piece to hold the rest of the bottom firm. Number one, and seat number two, to be hinged together. There is a crank placed on the end of an iron shaft, which goes through one of the foot posts, running along under one of the side rails, and connects with two cross shafts running at right angles by means of cog wheels, for raising or lowering, one the head, the other the feet. The front part of the seat number two is raised up by means of two crooks and two levers attached to the cross shaft. The mattress is made of four parts. The rock shaft number seven is intended for the patient to raise himself up in a sitting position.

See Drawing No. 440.

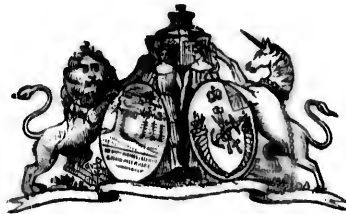
JACOB THADDEUS FORBES.

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A. D. 1854.—(CANADA.)—No. 441.

Improvements in Railway Cars and Carriages.

LETTERS PATENT to William Bowman, of the City of Hamilton, Mechanic, for the Invention of "IMPROVEMENTS IN RAILWAY CARS AND CARRIAGES."

Quebec, dated 2nd February, 1854.

BRIEF DESCRIPTION.

It consists in introducing into each truck frame of the car two sliding buffers or bunters, acted upon by springs formed of india rubber, steel or other elastic metal, to resist and absorb any concussion applied to the outer ends of the buffers. In having screw couplings affixed to each truck frame or car between the drawing apparatus, by the use of which both buffers and draw-bars are drawn together with a certain amount of force, which may be regulated at pleasure. There are draw-bars at the point of attachment of the screw couplings so as to admit of the nuts of the couplings passing freely within the ends of the draw-bars. Under the floor beams, abutting pieces, forming either diagonal braces or a longitudinal stringer or stringers, are bolted or otherwise secured firmly to the inner side of the bar in case of a violent collision, to form a species of connection between all the truck frames, so as to receive and transmit the shock from one truck to all the rest throughout the train. In order to equalize, or reduce to perfect uniformity, the weight to be thrown on each wheel of any given pair, and further to transfer and distribute the jolts or shocks to which any one wheel may

Bowman's Improved Railway Cars and Carriages.

be subjected throughout both, a compensating or equalizing beam is introduced between the contiguous ends of the bearing springs on either side of the truck. For greater security as well as for greater convenience, an improved axle-box is used where steel bearing springs are employed.

See Drawing No. 441.

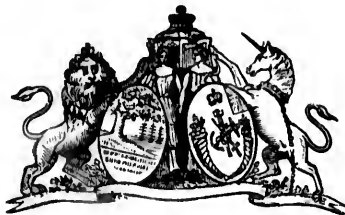
WILLIAM BOWMAN.

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A. D. 1854.—(CANADA.)—No. 442.

*New and Useful Improvement in the construction
of Post Augers.*

LETTERS PATENT to Antoine St. Jacques, of the Parish of St. Antoine de la Rivière Chambly, District of Montreal, Joiner and Machinist, for the invention of "A NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF POST AUGERS."

Quebec, dated 22nd February, 1854.

BRIEF DESCRIPTION.

The auger, which may be of any length desired, is of Iron; the screw, which is of steel, must be proportioned to the auger, and is surmounted with two knives, also of steel, soldered to an iron plate, which are used for raising the pulverized earth on the said iron plate. The auger is put in operation by turning its wooden handle with the hands.

See Drawing No. 442.

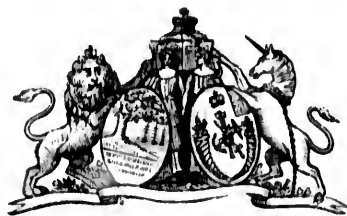
ANTOINE ST. JACQUES.

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A. D. 1854.—(CANADA) No. 443.

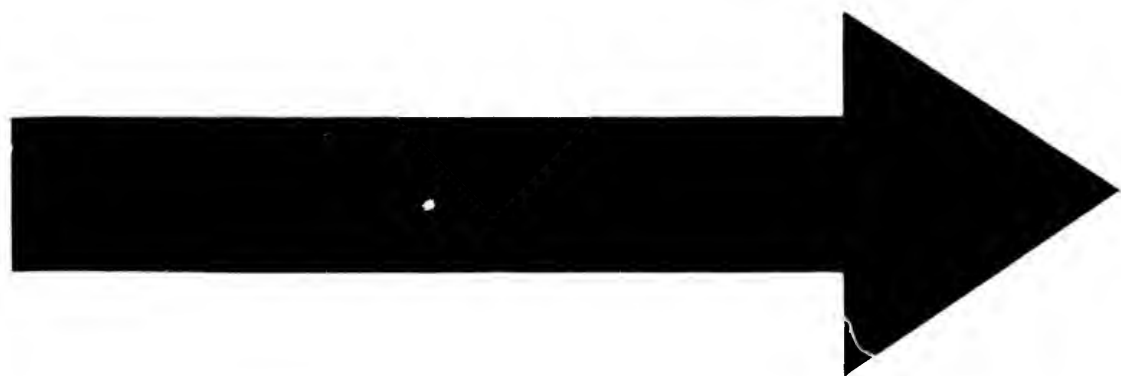
*and Useful Improvement for Heating Air,
for warming apartments by the waste heat of a
Stove, or fire grate, to be denominated "Winer's
Pyro-pneumatic Fire Grate."*

LETTERS PATENT to John Winer, of the City of Hamilton, in the County of Wentworth, Druggist, for the invention of "A NEW AND USEFUL IMPROVEMENT FOR HEATING AIR, FOR WARMING APARTMENTS BY THE WASTE HEAT OF A STOVE, OR FIRE GRATE, TO BE DENOMINATED 'WINER'S PYRO-PNEUMATIC FIRE GRATE.'"

Quebec, dated 22nd March, 1854.

BRIEF DESCRIPTION.

It consists in arranging, in horizontal rows alternately above each other, and directly over a parlor or other fire grate, a series of air tubes or flues, which communicate with a hot air chamber and the surrounding cold air in the room, causing the same to be heated as it circulates through them and supplying it to said hot air chamber, and from thence, through suitable flues, to adjoining apartments for the purpose of heating the same; in the employment, in a peculiar manner, of a double grate, that is to say, a grate composed of semi-elliptical bars open at front and back, said grate being arranged in the fire chamber in such a manner that a draught space will be left between



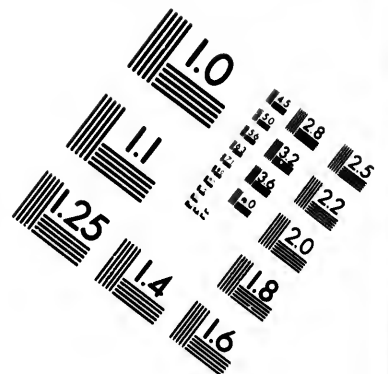
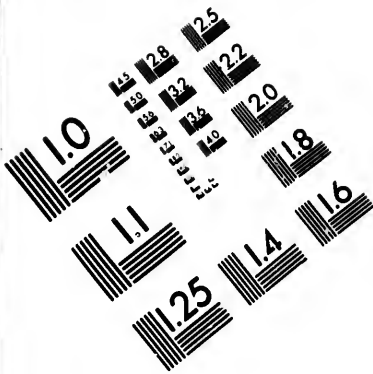
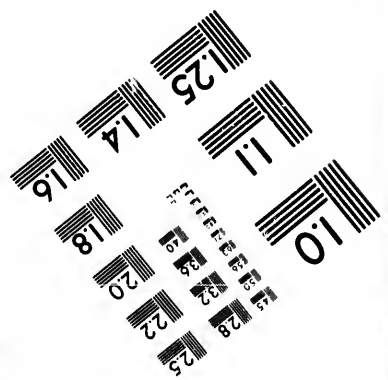
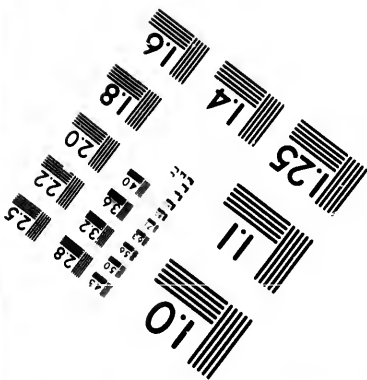
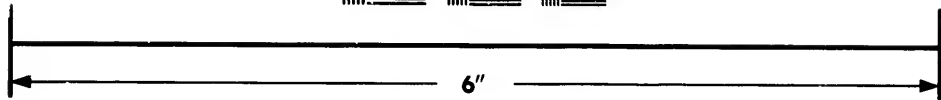
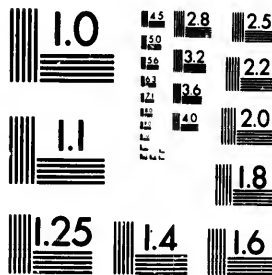


IMAGE EVALUATION TEST TARGET (MT-3)



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Winer's Pyro-pneumatic Fire Grate.

it and the back plate of the chamber, and a draught supplied to the same; and in the application of the principle, as hereinbefore described, to any kind of stove or apparatus in which fire is made, or heat generated.

See Drawing No. 443.

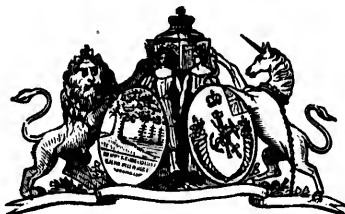
JOHN WINER.

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A. D. 1854.—(CANADA.)—No. 444.

A New way of Closing Shop Window Shutters.

LETTERS PATENT to Benjamin Cole, Sen., of the City of Quebec, Auctioneer and Broker, for the invention of "A NEW WAY OF CLOSING SHOP WINDOW SHUTTERS."

Quebec, dated 23rd March, 1854.

BRIEF DESCRIPTION.

Inside of the upper and lower parts of the frame, represented on the drawing by letters d, d, d, d, is a groove of the depth required, say one inch; at the point c, c, the groove has double its depth, the shutters, b, are introduced in the groove c, c, and then dropped in the groove e, e, at the lower part of the frame, when they can glide either right or left to the extremity of the frame. The last shutter, b, being introduced in like manner, is then prevented from being raised in the groove c, c, by means of a lock, or screw bolt, at letter d, thus closing them all from inside or outside, and thereby doing away altogether with iron bars.

See Drawing No. 444.

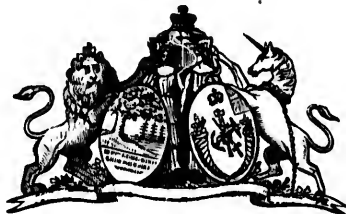
BENJAMIN COLE, Sen.

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A. D. 1854.—(CANADA.)—No. 445.

A Cider Mill and Press.

LETTERS PATENT to Hiram Scovell of the Village of Waterford, in the County of Norfolk, Yeoman, for the invention of "A CIDER MILL AND PRESS."

Quebec, dated 28th March, 1854.

BRIEF DESCRIPTION.

It consists in using three cylinders instead of one, for the purpose of grinding apples or for other uses to which it may be applied; in the construction of the press, which is worked with a lever and latch; and in the combining of the press with the mill for pressing cider, cheese, and for other purposes.

See Drawing No. 445.

HIRAM SCOVELL.

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A. D. 1854.—(CANADA.)—No. 446.

*An Improvement in the Grooving and Inside Finish
of Rifle Barrels.*

LETTERS PATENT to William Harrison Soper, of London, in the County of Middlesex, Rifle Maker, for the invention of "AN IMPROVEMENT IN THE GROOVING AND INSIDE FINISH OF RIFLE BARRELS."

Quebec, dated 28th March, 1854. .

BRIEF DESCRIPTION.

It consists, 1stly, in the widening of the barrel from near the muzzle to the breech, so that after the ball enters the muzzle about three inches, it will drop to its place with slight pressure, and on leaving the barrel will pass, without friction, till within about three inches of the muzzle, thus allowing the full expansive power of the powder to take effect.—2ndly, in the cutting of the groove, as shown in figures 2 and 7 of the drawing, by which the friction is lessened, and the ball only cuts by one edge instead of two, as by the old method of grooving. 3rdly in the cutting of the groove with a gather so as to press the ball in its exit from the barrel against the shoulder of the groove, to give steadiness in its circular motion and direction through the air.

See Drawing No. 446.

WILLIAM HARRISON SOPER.

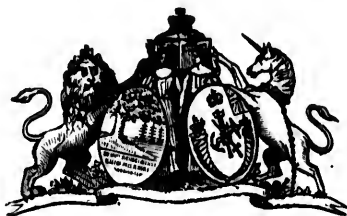
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A. D. 1854.—(CANADA.)—No. 447.

A New and Useful Improvement in the Construction of a Machine for Cutting Hay or Straw.

LETTERS PATENT to Lewis Reese, of the Village of Oshawa, in the County of Ontario, Turner, for the invention of "A NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF A MACHINE FOR CUTTING HAY OR STRAW."

Quebec, dated 30th March, 1854.

BRIEF DESCRIPTION.

It consists in the principle and mode of feeding the machine by the feed hands H, H, working the same by means of the levers K, K, and being enabled to regulate the length of feed by means of the holes N, N, in the levers K, K, by simply changing the feed hands from one hole to another; also in the crank attached to the wrist e, thereby allowing the fly wheel to be worked by hand without any interference from the pitman.

See Drawing No. 447.

LEWIS REESE.

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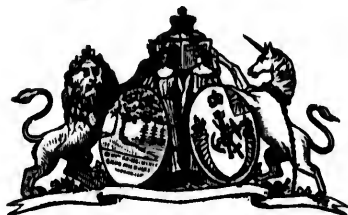
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A. D. 1854 —(CANADA.)—No. 448.

*A New and Improved Machine for Straightening or
Curving Rails.*

LETTERS PATENT to George Williston, of the City of Quebec,
Machinist, for the invention of "A NEW AND IMPROVED MACHINE
FOR STRAIGHTENING OR CURVING RAILS.

Quebec, dated 4th April, 1854.

BRIEF DESCRIPTION.

It consists in the combination of the screw strap, beam and slides, constructed substantially in the manner shown in drawing, with the beam placed on the top, or side of the rail, for the purpose of straightening or curving rails on railroads without the necessity of removing the same from the sleepers.

See Drawing No. 448.

GEORGE WILLISTON.

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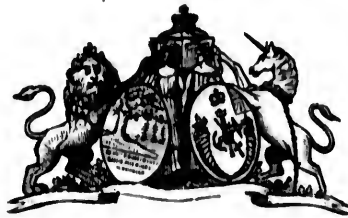
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A. D. 1854.—(CANADA.)—No. 449.

*A New and Useful Cement, to be called by him,
Gauvreau's Canadian Hydraulic Cement.*

LETTERS PATENT to Pierre Gauvreau, of the City of Quebec, Architect, for the Invention of "A NEW AND USEFUL CEMENT, TO BE CALLED BY HIM GAUVREAU'S CANADIAN HYDRAULIC CEMENT."

Quebec, dated 5th April, 1854.

BRIEF DESCRIPTION.

It is prepared from the formation of the rock on which the city of Quebec stands, commonly known as the clay slate, or black stone of Quebec (*pierre noire du cap*). This stone is to be broken into pieces of about six inches cube, and to be placed in an ordinary fire brick lime kiln of conical, oval, or other shape, but having iron bars at the base thereof, and under which the fire is to be made. When filled with cubes of the above size, the kiln is to be covered over with large pieces of the same stone to prevent the escape of the heat. Fire is then to be kindled beneath the grating, and kept at such a temperature during six hours as to expel all moisture from the stone in the kiln. The fire is then to be increased and raised to such a degree as to render the stone red hot, in which state of red heat it is to be kept during twenty four hours, at the expiration of which time it is to be allowed to cool slowly by allowing the fuel beneath gradually to burn itself out. When perfectly cold, the burnt stone is ground in an ordinary grist or plaster mill, and is then sifted through fine wire sieves, and

Gauvreau's Canadian Hydraulic Cement.

bolting cloths. To convert this powder into hydraulic cement, it needs only the addition of water sufficient to give it the necessary consistence for the use to which it is to be applied, but when used as ordinary mortar, it will need the addition of silicious sand, in such proportion as the nature of the work may suggest.

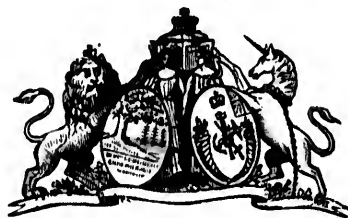
PIERRE GAUVREAU.

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A. D. 1854.—(CANADA.)—No. 450.

*New and Useful Improvements in a Machine for
knitting plain Fabrics, such as Shirts, Drawers,
Stockings, &c, known as, and called Double Act-
ing Knitting Machine.*

LETTERS PATENT to Jonas Philip Lee, of Niagara, in the County
of Lincoln, Manufacturer, for the invention of "A NEW AND
USEFUL IMPROVEMENTS IN A MACHINE FOR KNITTING PLAIN
FABRICS, SUCH AS SHIRTS, DRAWERS, STOCKINGS, &C, KNOWN AS,
AND CALLED THE DOUBLE ACTING KNITTING MACHINE.

Quebec, dated 10th April, 1854.

BRIEF DESCRIPTION.

It consists in the construction of a rack, slur and carry needles at-
tached so as to operate the jacks or levers and carry the yarn at the
same time, and by one combined motion. In the application of the
rack, slur and carry needles to operate on two sets of jacks or levers
and needles, by one and the same motion, knitting two webs or fabrics
by the same motion on one machine. In the construction and appli-
cation of jacks or levers, so formed and applied as to carry sufficient
yarn between the needles to form a loop or stitch of the length
required.

In the cam, 2, so arranged and applied as to work and vibrate the
needle bars and needles, to draw through, and throw off the stitches,

Lee's Double Acting Knitting Machine.

and tighten the fabric as knit. In the level gear, a a, and shaft e, and slur gear G, (or cam gear) so arranged and applied as to carry the slur and knitting needles. And in the construction of a machine for knitting two webs or pieces of fabric at the same time, by the same motion, and with one thread to each web.

See Drawing, No. 450.

JONAS PHILIP LEE.

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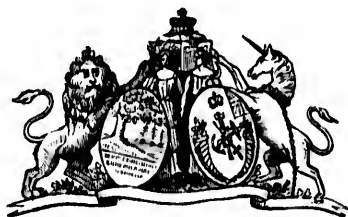
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A. D. 1854.—(CANADA.)—No. 451.

A New and Useful Machine for Moulding all descriptions of Tiles, Pipes and Bricks, for drainage, sewerage, building or other purposes, from clay or other plastic substances.

LETTERS PATENT to John Henry Charnock, of the City of Hamilton, Draining and Agricultural Engineer, for the Invention of "A NEW AND USEFUL MACHINE FOR MOULDING ALL DESCRIPTIONS OF TILES, PIPES AND BRICKS, FOR DRAINAGE, SEWERAGE, BUILDING OR OTHER PURPOSES, FROM CLAY OR OTHER PLASTIC SUBSTANCES."

Quebec, dated 17th April, 1854.

BRIEF DESCRIPTION.

It consists *firstly*, in the application of the principle of moulding all descriptions of Tiles, Pipes, Bricks and other articles for Drainage, Sewerage, Building and other purposes, from clay or other plastic substances, by exuding the material, by pressure, through Dies or orifices of the several required forms, having pendant cores of corresponding or other forms fixed in the centre of each Die or orifice. *Secondly*, in the arrangement and adaptation of its several parts, so as to produce an entire and complete machine which is perfectly suitable and effective for the end designed and set forth. *Thirdly*, in the special application of the excentric motion for working the plunger or

AA

Charnock's Machine for Moulding Tiles, Pipes and Bricks.

piston, whereby continuous action is secured, together with a direct, gradual, and uniform pressure on the clay, or other material, producing a corresponding uniformity of density and texture in the articles moulded. *Fourthly*, in the apparatus, as shown, for cutting off the articles, as they are moulded, into the required lengths, whereby a perfectly rectangular and vertical severance is ensured. *Fifthly*, in the moulding of all descriptions of pipes, an arrangement of Dies or orifices in the Die plates, whereby to have one or more Dies or orifices in the same Die plate, placed at any point or part of the said Die plate, and either attached to, or separated from each other. *Sixthly*, in the moulding of bricks, and other articles for building, or other purposes, such plan and construction of Die-plates with Dies and orifices to mould all descriptions of perforated and hollow bricks, and other building materials, such perforations being of any shape and number. *Seventhly*, in making the machine of any required size or dimensions, so as to be worked by any description of power.

See Drawing No. 451.

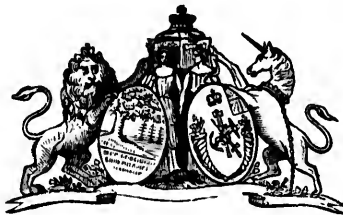
JOHN HENRY CHARNOCK.

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A. D. 1854.—(CANADA.)—No. 452.

*A Compound Carriage, so constructed that all kinds
of wheel carriages may be converted into sleighs.*

LETTERS PATENT to Peter Murdoch, of the Township of Ancaster,
in the County of Wentworth, Machinist, for the Invention of "A
COMPOUND CARRIAGE, SO CONSTRUCTED THAT ALL KINDS OF WHEEL
CARRIAGES MAY BE CONVERTED INTO SLEIGHS."

Quebec, dated 18th April, 1854.

BRIEF DESCRIPTION.

It consists in the wheels of the carriage being made in the common way, of a size and strength to suit circumstances. The hind wheels run on crank axle-trees, the axles turn on discs to which are attached two springs which form a catch to hold the axles in their places when turned either up or down. Attached to the back spring is a wire which passes through the body immediately behind the seat, by pressing upon said wire the spring is moved, and the axle disengaged from the catch, and can be turned up or down. The same effect may be produced by means of a lever or cord passing round a pulley. By either of these means, the change from wheels to runners, &c., may be made without stopping the carriage. For heavy work a double crank axle running the whole width of the carriage answers better than the single one. There are two circular rings, the upper one is fastened to the trussed bar G, which reaches between the two runners for drawing by, and supporting the weight, when the wheels are in

Murdoch's Compound Carriage.

use, and has a rim round it and forms a recess for the under circular ring which is held in its place by three keepers fastened with screws and to which are attached two three pronged brackets in which the wheel E works, which is raised and lowered by a lever. A piece of wood is fastened to the front of the dash board with a notch in it for holding the end of the lever, which is held into the notch by a spring. In each of the four blocks, fastened to the sides of the body under the seat, is a spiral spring of steel.

See Drawing No. 452.

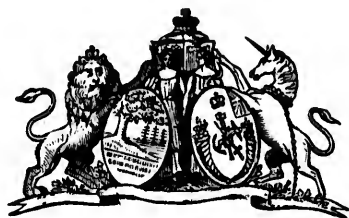
PETER MURDOCH.

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A. D. 1854.—(CANADA.)—No. 453.

Improvements in the Double Dash Churn.

LETTERS PATENT to Peter Murdoch, of the Township of Ancaster,
in the County of Wentworth, Machinist, for the Invention of
"IMPROVEMENTS IN THE DOUBLE DASH CHURN."

Quebec, dated 18th April, 1854.

BRIEF DESCRIPTION.

It consists in the double dash with perforated and plain divisions,
driven by means of a double crank, shaft and winch, with or without
gearing; as in the use of a false or double bottom made of zinc for the
purpose of making an aperture into which hot or cold water is intro-
duced to modify the temperature.

See Drawing No. 453.

PETER MURDOCH.

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A. D. 1854.—(CANADA.)—No. 454.

A Rolling Screen Fanning Mill.

LETTERS PATENT to Richard Lossing, of the Town of Brantford, in the County of Brant, Carpenter, for the Invention of "A ROLLING SCREEN FANNING MILL."

Quebec, dated 21st April, 1854.

BRIEF DESCRIPTION.

It consists in the structure of the frame; the position of the fans; the direction of the wind on the shoe; the smallness of the shoe and the shape of the same; the second hopper that conducts the grain through the screen, or out of the side of the mill, as required; and the rolling cone shaped screen.

See Drawing No. 454.

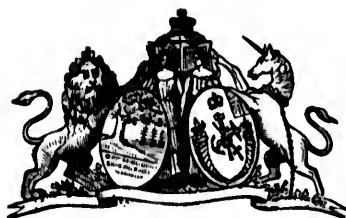
RICHARD LOSSING.

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A. D. 1854.—(CANADA.)—No. 455.

Apparatus for cooking, for Bakers' Ovens, for drying and roasting Malt and other vegetable produce, for seasoning Lumber, also for a Drying Room, with self-acting Ventilator, for Laundries, hatching Poultry, heating Irons and keeping Cooked Provisions hot, by the application of Gas.

LETTERS PATENT to John Parsons, of the City of Toronto, Accountant, for the Invention of "APPARATUS FOR COOKING, FOR BAKERS' OVENS, FOR DRYING AND ROASTING MALT AND OTHER VEGETABLE PRODUCE, FOR SEASONING LUMBER, ALSO FOR A DRYING ROOM, WITH SELF-ACTING VENTILATOR, FOR LAUNDRIES, HATCHING POULTRY, HEATING IRONS AND KEEPING COOKED PROVISIONS HOT, BY THE APPLICATION OF GAS."

Quebec, dated 28th April, 1854.

(Surrendered and new Patent issued, 29th October, 1856.)

JOHN PARSONS.

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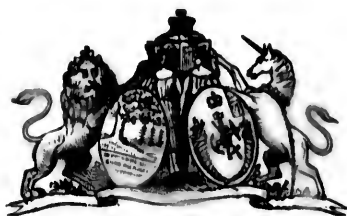
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A. D. 1854.—(CANADA.)—No. 456.

*New and Useful Improvements in the Construction
of the Cider Mill and Press.*

LETTERS PATENT to Levi Howell, of the Township of Ancaster, in the County of Wentworth, Yeoman, for the Invention of "NEW AND USEFUL IMPROVEMENTS IN THE CONSTRUCTION OF THE CIDER MILL AND PRESS."

Quebec, dated 2nd Feb., 1854.

BRIEF DESCRIPTION.

It consists in the cylinder A, figure 1, which is used for grinding or crushing the apples or other fruit, and which has spikes or teeth of iron about one quarter of an inch long, set in rows of about six across said cylinder, and distant from each other about half an inch; in the iron plate lining the wooden hopper in front of the cylinder being differently shaped to any used; in the means of expressing the juice from the pulp, by a flat clothier's screw being used instead of a common thread screw, plates of iron, instead of the common iron nut, are sunk firmly into the beam in which said screw works.

See Drawing No. 456.

LEVI HOWELL.

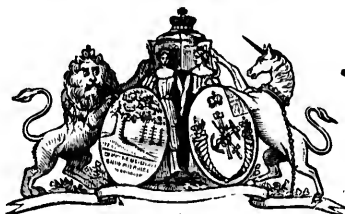
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A. D. 1854.—(CANADA.)—No. 457.

*A combination of Machinery for the making of
Barrels, Kegs, Tubs and other Bilge Works.*

LETTERS PATENT to Benjamin Wait, of Willoughby, in the County of Welland, for the Invention of "A COMBINATION OF MACHINERY FOR THE MAKING OF BARRELS, KEGS, TUBS, AND OTHER BILGE WORKS.

Quebec, dated 6th June, 1854.

BRIEF DESCRIPTION.

It consists in the inside and outside stave dressers in combination with the concave whirred rollers; in the pressure rollers; in the concave and reverse beds in connection with the outside dresser; in the halved opening in the stationary ring for passing through the staves, in combination with the projecting flange or lip on the outer ring in which the cutters are arranged; in the mode of jointing bilge staves of machinery barrels, and other bilge works by the employment of the swing frame, having a concave or convex bed in, or against which the stave is sprung and secured to the required bilge in combination with the rotary jointer and the sliding carriage, or either, whether the said frame for confining the stave in its bent condition or position, and conveying it to be jointed be constructed as described or otherwise; and, finally, in the apparatus for chamfering, howeling, and crozeing, and the tools, together with the mode of using them.

See Drawing No. 457.

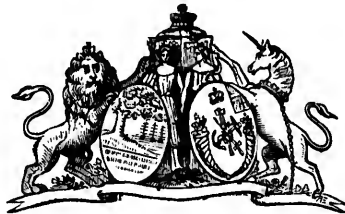
BENJAMIN WAIT.

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A. D. 1854.—(CANADA.)—No. 458.

A New and Useful Improvement in the Construction of Churns.

LETTERS PATENT to Daily Selleck, of the Town of Prescott, in the County of Grenville, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF CHURNS."

Quebec, dated 14th June, 1854.

BRIEF DESCRIPTION.

It consists in the construction of a solid revolving circular table placed on the centre upright revolving axis, near the bottom of the square churn box, with elliptical holes or openings in the same, one near the centre of the said circular table, the other near the outer edge, cut slopingly. In the upright flange formed with perpendicular lines on the one side, and sloping and curved lines on the other side; the said flange placed on the said revolving table, the centre of said flange at or near the centre of the radius of the said revolving table likewise two or more sloping notches in the edge of the said revolving table, which may be of wood or other suitable material, as also its appendages. In the perforation of the centre of the lid with a round hole for the ingress of pure fresh air, and a hole at or near each angle of said lid for the egress of noxious and impure air, disengaged from the cream or milk during the act of churning. Also, what may be substituted for the above described revolving circular table and its attached flange, a circular table, something similar to the above,

Selleck's Improvement in the construction of Churns.

having holes or notches, but in lieu of the flange an octangular upright shaft with three cross sweeps or bars bevelled on one side of the shaft and rounding, or partly so, on the other two, passing through the shaft slopingly, the third or centre one at right angles to the former, and placed nearly horizontal; this may be attached to the central revolving axis in lieu of the said circular table and its flanges, and with very good effect in producing butter.

See Drawing No. 458.

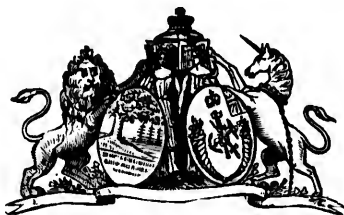
DAILY SELLECK.

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A. D. 1854.—(CANADA.)—No. 459.

An Improved Obstetrical Supporter.

LETTERS PATENT to Ralph Hoyt, of the City of Hamilton,
Machinist, for the Invention of "AN IMPROVED OBSTETRICAL SUP-
PORTER."

Quebec, dated 29th June, 1854.

BRIEF DESCRIPTION.

It consists in the extending of the straps along the thighs through the pulleys across the top of the knees, and arranging them so that they may run through these pulleys where they are connected with the knee and feet straps, that they may be seized by the hands of the user and drawn to increase or slacken or graduate the pressure of the back pad against the back, as desired, without changing the position of the body, legs or feet.

See Drawing No. 459.

RALPH HOYT.



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A. D. 1854.—(CANADA.)—No. 460.

A New and Improved Method of Manufacturing Peat-bog by drying, pressing, and coking, for fuel and other purposes.

LETTERS PATENT to Joseph Scobell, of the City of Montreal, for the Invention of "A NEW AND IMPROVED METHOD OF MANUFACTURING PEAT-BOG BY DRYING, PRESSING AND COKING, FOR FUEL AND OTHER PURPOSES."

Quebec, dated 7th June, 1854.

BRIEF DESCRIPTION.

It consists, firstly, in the peat-bog being properly drained off; secondly, in the upper surface about six inches in depth, being excavated and removed; thirdly, in the peat-bog being excavated to such a depth as may be required; fourthly, in the peat so raised being pulverized and filled into moulds and pressed, similar to the manufacture of bricks; fifthly, in the pressed peat cakes, being wheeled to a convenient place, and sun dried in rows or piles, similar to the drying of bricks in brick yards; sixthly, when the peat blocks are sufficiently dry they are wheeled and piled in a kiln similar to a brick kiln, and coked by burning or charring, or they may be piled and coked by a process precisely similar to that employed in the manufacturing of wood coal; seventhly, the peat thus prepared can be converted by distillation into a brilliant gas for illumination entirely free from those

Scobell's Improved method of Manufacturing Peat-bog.

sulphureous compounds which abound in common coal, and will, as in the case of common coal, produce coke; eighthly, the peat-bog of this country being thus prepared by moulding, pressing, drying and coking is applicable for the manufacture of iron and refining of steel, drying of malt, fuel for steam engines, domestic and other purposes.

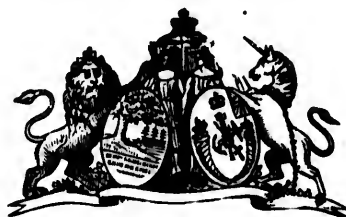
JOSEPH SCOBELL.

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A. D. 1854.—(CANADA.)—No. 461.

A Floating Gangway, Boat Launch, and Life Raft.

LETTERS PATENT to Richard Dover Chatterton, of the Town of
Cobourg, for the Invention of "A FLOATING GANGWAY, BOAT
LAUNCH, AND LIFE RAFT."

Quebec, dated 19th June, 1854.

BRIEF DESCRIPTION.

It consists in the launching of boats, of the application of a slide upon an inclined plane or planes, suspended from which the boat is floated upon a necessarily even keel, at a distance from the side of the vessel; and the combination therewith of a floating gangway to preserve easy communication with the vessel and protect it from the swell of the surrounding sea; this is specially applicable as a life raft, and consists of a frame of Iron, or other suitable material, extended, as may be convenient, either the entire breadth of the ship, or divided in the centre and connected, but with power of instant release, at each extremity, with a float or buoyant cylinder outside the bulwark. The frame rests upon two horizontal supporters planted on either side of the deck, and consists of two side rails of sufficient length, when lowered, with the cylinder attached, to form a convenient inclined plane from the deck of the ship to the sea, the cylinder forming a break water of sufficient buoyancy to support the entire weight. In the centre of the frame is a gangway contrived so that the rails fold up and down for convenience of stowage. In case of wreck the frame is extended, and forms a bridge. Should the vessel founder at sea, the whole detached,

Chatterton's Boat Launch and Life Raft.

supported by the two buoyant floats with planks for flooring and bulwarks, fitted and ready to be attached, would be equally available as a raft. The floating gangway, shown in Figure 3, is intended to be used as a life escape on wharves, and for easy communication with boats and vessels in harbour.

See Drawing No. 461.

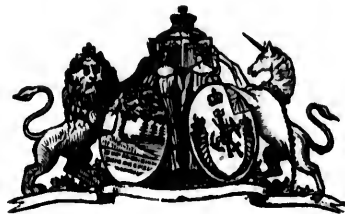
RICHARD DOVER CHATTERTON.

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A. D. 1854.—(CANADA.)—No. 462.

*Improvements in the Forming, Shaping, and Casting
of Iron Ploughs.*

LETTERS PATENT to Joseph Thirkell, of the Town of London, in the County of Middlesex, Agricultural Implement Maker, for the Invention of "IMPROVEMENTS IN THE FORMING, SHAPING AND CASTING OF IRON PLOUGHS."

Quebec, dated 29th May, 1854.

BRIEF DESCRIPTION.

It consists in the combination of the mouldboard A, land side B, stay C, flange E, lug F, and solid toe G, in one casting, requiring no other fitting for use than the application of the share D, the false land side I, and the bolts for attaching the beam with its coulter and the handles. And in the peculiar shape of the mould board resulting from the various curves adopted in forming it.

JOSEPH THIRKELL.

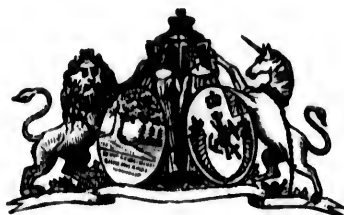
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A. D. 1864.—(CANADA.)—No. 463.

*A New and Improved method of covering roofs
with Slates.*

LETTERS PATENT to Joseph Scobell, of the City of Montreal, Architect and Builder, for the Invention of "A NEW AND IMPROVED METHOD OF COVERING ROOFS WITH SLATES."

Quebec, dated 14th June, 1854.

BRIEF DESCRIPTION.

The roof having been constructed of the proper pitch, each slate is to be floated and fairly bedded in common mortar, composed of three measures of river sand to one of hard burnt lime, well compounded together, laid on one and a half inch pine boarding, and to be properly pointed on the under side where it laps over the lower slate about two inches, with slate cement. The mortar between the vertical joints of the slates to be raked out and slate cement run into the same, and spread on each side to a sufficient width for bedding the slate fillet, which is secured to the boarding by nailing. The following is the method of compounding the slate cement required for the work: dried river sand two measures, best burnt ground, or water lime, one measure, grounds of boiled and raw lin-seed oil one eighth in weight, dry whiting one eighth in weight, best white lead one fourth in weight, molasses one fourth in weight, the whole to be well wrought together.

See Drawing No. 463.

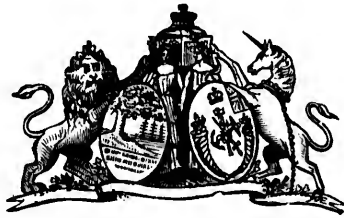
JOSEPH SCOBELL.

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A. D. 1854.—(CANADA.)—No. 464.

An Improved Signal Light for Railways.

LETTERS PATENT to William J. Hockett, of the City of Toronto, in the County of York, Machinist, for the Invention of "AN IMPROVED SIGNAL LIGHT FOR RAILWAYS."

Quebec, dated 30th June, 1854.

BRIEF DESCRIPTION.

The drawing shows an elevation of a railway switch constructed in the usual manner with the signal light attached. Letter A is the switch handle, B a rod connected at one end by a joint to the handle A, and at the other to the rails C, and C¹. In the rod P is a hole to receive the foot of the crank e, attached to the rod f; the rod f is stepped in the frame work of the switch, and is so constructed that it will turn on its centre by any pressure of the rod p on the crank; e, i, i, are lanterns placed in a frame at the upper end of the rod f, each lantern has two white and two red glasses, or glasses of any two different colours. The action of the signal is as follows:—the switch handle A, being moved from the point h to h, for the purpose of altering the position of the rails C and C¹, to bring them in line with the rails l, l, the rod p acting on the crank e, causes the lights to be reversed from their original position, showing a different coloured light in the line of the rails. What is claimed as an improvement is the application of the lights on the rod f, which are made to indicate the position of the rails by the attraction of the rod p on the shaft f, when the handle is turned from the point h to h, in the opposite direction.

See Drawing No. 464.

WILLIAM J. HOCKETT.

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A. D. 1854.—(CANADA.)—No. 465.

A Machine for working Irregular Surfaces, so as to form a piece of Timber to any Required Shape.

LETTERS PATENT to Richard Muchall, of the Township of Hamilton, in the County of Northumberland, Cabinet Maker, for the Invention of "A MACHINE FOR WORKING IRREGULAR SURFACES, SO AS TO FORM A PIECE OF TIMBER TO ANY REQUIRED SHAPE."

Quebec, dated 13th July, 1854.

BRIEF DESCRIPTION.

Figure 1, represents cast iron slides fastened to frame. Figure 2, cast iron slide gate with grooves to work or move along slides marked 1. Figure 3, cast iron shaft with two or more knives, to be worked horizontally or perpendicularly, fastened to shaft by means of screw bolts passing through longitudinal holes in knife, and for regulating the knife in proportion as the same may be required to be shifted either backwards or forwards. Figure 4, swinging gate or frame for placing and securing the patterns 9, and piece of timber to be worked 10. Figure 5, crank and wheel for working the slide gate either backwards or forwards at will. Figure 6, wheel with grooved edge to admit belt or cord fastened to slide gate. Figure 7, represents the end of shaft around which the belt passes to affix steam or horse power. Figure 8, shape of knife with longitudinal holes through which screws pass to fasten knife to shaft, and for regulating the same.

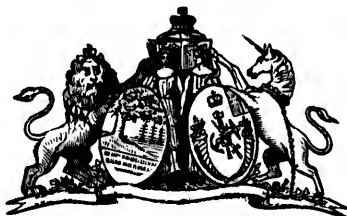
See Drawing No. 465.

RICHARD MUCHALL.

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A. D. 1854.—(CANADA.)—No. 466.

New and Useful Improvements on Carriages.

LETTERS PATENT to Thomas Murgatroyd, of Smithville, in the Township of Grimsby, County of Lincoln, Machinist, for the Invention of "NEW AND USEFUL IMPROVEMENTS ON CARRIAGES." Quebec, dated 21st July, 1854.

BRIEF DESCRIPTION.

It consists in suspending the springs by their ends either above, or above and below the axles, and in combination with each other, so that the body and springs can be stayed with permanent braces, and in the application of the excentric fifth wheel, or turn plate, applied to the springs, which was recently applied to the reach or coupling, enabling the carriage to turn in less than the usual space. The springs may be of wood or steel.

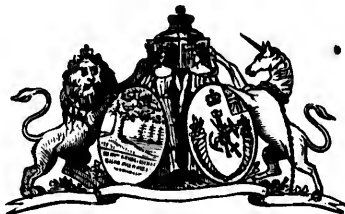
See Drawing No. 466.

THOMAS MURGATROYD.

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A. D. 1854.—(CANADA.)—No. 467.

A Seed Sower.

LETTERS PATENT to John Brown, of the City of Toronto, in the County of York, Machinist, for the Invention of "A SEED SOWER."

Quebec, dated 21st July, 1854.

BRIEF DESCRIPTION.

Figure 1 represents the section of end. Figure 2 zinc bottom showing holes through which the seed passes. Figure 3 represents longitudinal section showing slide (marked 1) and hand lever, by which it is worked, also upper part of slide with tin tubes and slides for turnip and other seeds to be sown in drills or rows, and which can be shifted any distance from one another at pleasure. Figure 4 represents top view of seed box, showing the inside hand lever supporting plate holes in the slide for feeding niches, as shown on number three, tin receptacles for turnip and other seeds. Figure 5 represents iron plate passing over hand lever with holes in it to regulate the slide to sow any quantity required.

See Drawing No. 467.

JOHN BROWN.

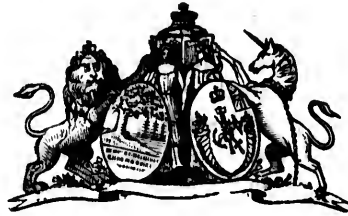
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A. D. 1854.—(CANADA.)—No. 468.

A New and Useful Sewing Machine.

LETTERS PATENT to D'Arcy Porter, of the City of Hamilton, in the County of Wentworth, Machinist, for the Invention of "A NEW AND USEFUL SEWING MACHINE."

Quebec, dated 21st July, 1854.

BRIEF DESCRIPTION.

Figure 1 represents the plan; figure 2 section and elevation; figure 3 and 4 sections on the lines A, B, and C, D, respectively shown in figure two. E represents the fly-wheel; F the driving pulley; G the pulley which drives the spindle for winding the bobbin, which is placed on the top of the machine; the above described pulley and fly-wheel are fastened upon the crank shaft, and driven by the foot by means of the treddle shown in figure two and three. A belt from the pulley F, gives motion to the pulley and shaft M, and H, called the excentric shaft, for giving the different motions for working, through the invention of levers and rocking shafts, the needle feeding the cloth through, &c., and motion to the shuttle. I, the lever and rocking shaft, for working the needle, and slackening the thread at certain intervals, worked by the cam excentric K. L, the cam excentric for giving motion to the shuttle, by means of the slide and curved piece, which embraces the shuttle. The motion which is given to the feed wheel N, at intervals is by means of the friction lever O. The feed wheel N, is roughened on the circumference the better to draw

Porter's Sewing Machine.

the cloth, leather, &c., along ; this lever O, upon the rocking shaft P, is moved by the arm Q, which presses upon the excentric R. S, shows the spool containing the thread, which is pressed upon by a spring T, to produce the necessary tension for drawing the thread tight in the needle, which is curved to suit the radius of the needle lever. U, the cloth presser containing a spiral spring, which may be raised up by the catch V, while placing the cloth in the machine. The thread is seen passing through the guide W, and the needle X. Y, is the lever for guiding the thread to prevent its getting foul. The invention consists in the general form and construction of the machine; in the principle of taking all the motions from the excentric shaft; and in applying or using the curved needle with the shuttle.

See Drawing No. 468.

D'ARCY PORTER.

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A. D. 1854.—(CANADA.)—No. 469.

*A New and Improved Method of Constructing
Water Closets.*

LETTERS PATENT to John Pye, of the City of Quebec, Plumber,
and Brass Founder, for the Invention of "A NEW AND IMPROVED
METHOD OF CONSTRUCTING WATER CLOSETS."

Quebec, dated 14th August, 1854.

BRIEF DESCRIPTION.

It consists in a cast-iron or other reservoir, with rounded or chamfered angles and a sloping bottom. The reservoir is separated into three compartments by bridge pieces D, E. The reservoir is kept constantly full of fresh water by a supply pipe A, figures two and six. The supply is adjusted by the lever and floating ball B, which, when the reservoir is full, just allows a regular but small stream of water to flow into it, through the cock C. The soil enters into and remains in the central portion of the reservoir between the two bridges D, and E, and constantly floats on the surface of the fresh water in it. F, is the soil pipe; G, the main tubular valve of a peculiar construction; figures 3 and 4, show the valve when in position, that is to say, when shut. The top edge of the tubular valve is level with the surface of the water in the reservoir, and the overflow passes into it in a constant stream as supplied by the aforesaid pipe A. When the water in the valve at H, has attained a certain height, it presses on the conical valve I, and overcoming the resistance of spring K, by its pressure, flows in a constant jet into the soil pipe F. So long as the height or

Pye's Water Closets.

depth of water in the valve C, is not sufficient to open the valve, it remains in close contact in its bearing by the upward force of the spring K. Whilst the supply pipe A, continues its action, the reservoir remains constantly full of fresh water, and prevents the soil from emitting any offensive smell. Figure I, is a perspective view of the closet having two or more places, separated by a partition L, or one only. The covers are moveable on hinges and kept locked down. To empty the contents of the reservoir, it is necessary to raise the cover over the discharge end of the apparatus, and pull out the tubular valve G, holding it up by the handle M. When the tubular valve is raised and the water in the reservoir begins to lower, the ball and lever fall and open the supply cock. Figure 6 is a perspective view of the same closet as prepared for ordinary dwelling houses.

See Drawing No. 469.

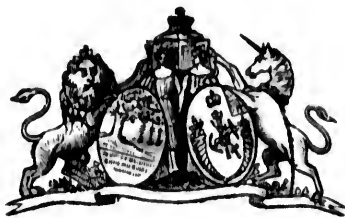
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A. D. 1854.—(CANADA.)—No. 470.

The New Art of Manufacturing Paper from the Plant known by the Linnean Generic name of "Gnaphalium," and vulgarly called "Cudweed," or "Life Everlasting."

LETTER PATENT to Stephen Redington Andres, of the Village of Chambly, Esquire, for the Invention of "THE NEW ART OF MANUFACTURING PAPER FROM THE PLANT KNOWN BY THE LINNEAN GENERIC NAME OF 'GNAPHALIUM,' AND VULGARLY CALLED 'CUDWEED' OR 'LIFE EVERLASTING.'"

Quebec, dated 25th August, 1854.

BRIEF DESCRIPTION.

The *Gnaphalium Pollycephalum* which is indigenous to Canada as well as the various species of the same genus, all of which may be used in the above art, should be gathered by reaping it close to the ground as soon as it is in full flower; it is then to be dried by exposure in the open air, or may be kiln dried; when thoroughly dried it is to be bruised either altogether or the flowers separated from the leaves and stems, and the leaves and stems together, according to the purpose to which it is to be applied, whether to the manufacture of fine, white, or coarser coloured paper. The bruising is for the purpose of separating the ligneous from the fibrous and other matter; it should be then ground, either together or separately, by the usual process of grinding herbs, the pulverised substance is then to be mixed with water and

Andres' Art of Manufacturing Paper.

converted into pulp by agitation, after which the pulp is to be made into paper by any of the known processes of manufacturing that article. The Invention consists in the discovery generally of the art of converting the various species of *Gnaphalium* into pulp as aforesaid and afterwards into paper.

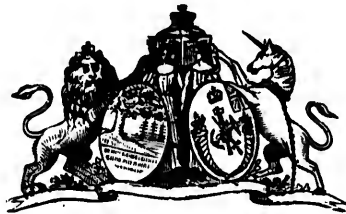
STEPHEN REDINGTON ANDRES.

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A. D. 1854.—(CANADA.)—No. 471.

A New and Improved mode of Making and Preparing Moulds for Copper, Brass, and Composition Castings.

LETTERS PATENT to Michael Egan, of the Town of Niagara, in the County of Lincoln, Brass Founder, "A NEW AND IMPROVED MODE OF MAKING AND PREPARING MOULDS FOR COPPER, BRASS AND COMPOSITION CASTINGS."

Quebec, dated 26th August, 1854.

BRIEF DESCRIPTION.

It consists, firstly, in the application of cast iron or any other metal requiring a greater heat to melt it than is required to melt brass or copper or composition for the formation of moulds in which to cast brass or copper or composition castings; secondly, in the application of the wash sal enixum being the essential ingredient as a coating for the inner surface of the moulds for the purpose of preventing the castings from adhering to the moulds, and to prevent them from blistering or coming unsound, but rather making the casting come out sound, clean and bright. The wash is prepared as follows: into a vessel containing two quarts of water put an ounce of the purest and best quality of sal enixum, and when thoroughly dissolved let half a pound of dry clay and half a pound of dry sand be put into the vessel, and the whole then stirred and well mixed, and it will then be ready for use; and thirdly, in the application of such moulds for casting brass, copper and

Egan's Mode of Making and Preparing Moulds.

composition, but especially for casting brass and composition boxes for the journals of rail road cars, and other brass castings for railroad car trimmings.

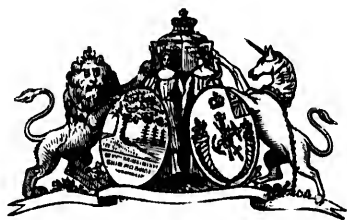
MICHAEL EGAN.

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A. D. 1854.—(CANADA.)—No. 472.

A New and Useful Improvement in the Apparatus for Cleaning and Scouring Wheat, Rye and Buckwheat.

LETTERS PATENT to John H. Gatiss, of the Township of Barton, in the County of Wentworth, Mineralogist, for the Invention of "A NEW AND USEFUL IMPROVEMENT IN THE APPARATUS FOR CLEANING AND SCOURING WHEAT, RYE AND BUCKWHEAT."

Quebec, dated 28th August, 1854.

BRIEF DESCRIPTION.

The stone for scouring and cleaning is dressed in such a way that half of the dress is drafted in, and the other half out; this manner of dressing the stone causes the grain to rotate on its end while passing through the stone, and loosens the black blossom on the end or extremity of the buckwheat, it scours the grain perfectly bright, and hulls a portion of it; the dressing removes the outside skin or bran which is found on both wheat and rye. The quality of the flour is also much improved, and the flour manufactured out of buckwheat by this process can be made as white as the best wheat flour. The grooves are from an eighth to a quarter of an inch in depth, just wide enough to admit the grain, and from a quarter to half an inch apart.

See Drawing No. 472.

JOHN H. GATISS.

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A. D. 1854.—(CANADA.)—No. 473.

*An Improved Hub for Waggon and Carriage
Wheels.*

LETTERS PATENT to Joel Babcock Hayden, of the Town of Brantford, in the County of Brant, Gentleman, for the Invention of
“AN IMPROVED HUB FOR WAGGON AND CARRIAGE WHEELS.”

Quebec, dated 4th Sept., 1854.

BRIEF DESCRIPTION.

It consists in having two radial grooved flanches, between the faces of which, is placed a circular disc; one of the flanches attaches permanently to, and may be cast with, the box, while the other fits loosely on the box and is pressed against the disc, between the two flanches, by means of a nut on the outer end of the box. The radial grooves in the two flanches, when the flanches are properly adjusted, and placed opposite to each other form mortices, or recesses, to receive the ends of the spokes, the mortices being divided longitudinally by the disc, which fits in saw cuts in the ends of the spokes rivets passing through the spokes and disc. The combination of the disc and saw cuts in the spokes constitutes the Invention.

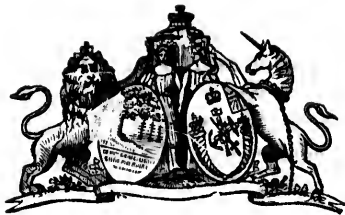
See Drawing No. 473.

JOEL BABCOCK HAYDEN.

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A. D. 1854.—(CANADA.)—No. 474.

A Potato and Seed Drill.

LETTERS PATENT to William Nixon, of the Township of Grimsby, in the County of Lincoln, Yeoman, for the Invention of "A POTATO AND SEED DRILL."

Quebec, dated 4th Sept., 1854.

BRIEF DESCRIPTION.

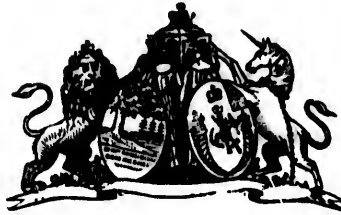
Figure 1, represents the plan; figure 2, back elevation; and figure 3, side elevation. The seed hopper A, rests upon the two wheels and axle which are keyed together, and upon which is also fastened the cog wheel C, which drives the horizontal cog wheel D, which is fastened to the underside of the cast iron seed wheel, shown at E, figure 1, which has various perforations through for receiving and discharging the seed; those only for potatoes are shown. The small holes are for drilling, and the two large ones for hilling them. Plugs of thick leather faced with tin are put into these holes when the machine is used for corn or other seed, smaller holes are made through this wheel, and upon the top of this a thin wooden wheel is sometimes used with suitable holes for various kinds of seeds. As the seed wheel is turned round by means of the cog wheels, a cut-off figure 4, showing the top edge and end view with a knife edge F, and held by two screws over the hollow tooth G, and which cuts off the potatoes that project above the surface of the feed; when a ball or roller attached to a spring in a recess on the underside of this cut-off, punch out those potatoes that happen to stick, they fall through the tooth G, which makes the fur-

Nixon's Potato and Seed Drill.

row and are covered by the scrapers H, H, attached to the handle L, which may be raised or depressed by the catch at the top. Two tin canisters with two small holes in the bottom of each, K, K, are hung on the ends of two springs, &c. &c. What constitutes the invention is the general form and construction of the machine, and the application of the horizontal seed wheel.

See Drawing No. 474.

WILLIAM NIXON.



A. D. 1854.—(CANADA.)—No. 475.

An Improved Straw Cutter.

LETTERS PATENT to John Brown, of the city of Toronto, in the County of York, Machinist, for the invention of "AN IMPROVED STRAW CUTTER.

Quebec, dated 4th September, 1854.

BRIEF DESCRIPTION.

Figure one, in the annexed plan, represents side view showing fly wheel with cog-wheel for turning shaft with knives, spring for regulating quantity of feed slide (marked five), over which the cut straw or hay passes.

Figure two—section showing cast iron plate for securing knives in proper position with four open spaces to admit of end of knives, which are fastened by means of two bolts to each knife, at each end of knife, one of which passes through the plate and knife, the other passing through plate against back edge of knife to regulate the knife, two feed rollers (marked eight) plate against which knives cut, and feed passes through.

Figure three—front view showing angular position of knife and edge of knife plates, and the means by which the knives are fastened to the same by bolts passing through longitudinal holes, shown on the edge of same, so as to be adjusted backwards or forwards to work against cutting plate edge of cog-wheel and pinion of fly wheel.

Figure four—side view showing outside of feed rollers, crank, iron

Brown's Straw Cutter.

plate on which shaft of knife plate works, and cover (marked nine) to prevent the straw from flying about. What is claimed as the invention is the form of the knife plate, the construction of the feed throat, the position of the knives, and manner of securing the same to the knife plate.

See Drawing No. 475.

JOHN BROWN.

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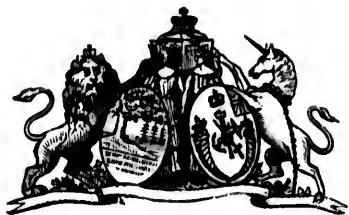
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A. D. 1854.—(CANADA.)—No. 476.

An Improved Hand Lantern.

LETTERS PATENT to Lewis Blackley Carpenter, of the city of Quebec, Trader, for the invention of "AN IMPROVED HAND LANTERN.

Quebec, dated 6th October, 1854.

BRIEF DESCRIPTION.

It consists in a section of a globe and a concave metal back, instead of a whole globe, and the connection of a clasp to support the lantern. The top and bottom of the lantern correspond with the concave metal back and section globe; to the inside of this back E, is attached one or more reflectors F, F, the lamp pot is secured in the lantern by means of pins or studs M, M, fitting in a groove hole or slit. These pins or studs are worked by pressure on their ends at A, and are thrown into their place by the action of the spring L.

See Drawing No. 476.

LEWIS BLACKLEY CARPENTER.

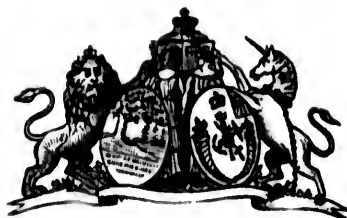
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A. D. 1854.—(CANADA.)—No. 477.

A New and Useful Machine for expeditiously arresting the progress of railway cars by almost sudden steam brakes.

LETTERS PATENT to Henry Miller, of the Township of Sandwich, in the County of Essex, Tobacconist, for the invention of "A NEW AND USEFUL MACHINE FOR EXPEDITIOUSLY ARRESTING THE PROGRESS OF RAILWAY CARS BY ALMOST SUDDEN STEAM BRAKES.

Quebec, dated 19th September, 1854.

BRIEF DESCRIPTION.

It consists in using the steam by means of a pipe and three way cocks or slide valves, figure three, attached to the boiler of the engine or locomotive, and under the control of the Engineer, by which the steam is conveyed to a cylinder under each of the cars attached to a train, or as many as is desirable, by which the pistons are forced out, and being attached by a system of levers and rods, operate on the shoes or brakes, pressing them against the wheels and producing friction to stop the train; also in the mode of making the coupling connections by means of hose or flexible pipes and combinations, and in the casing or enclosing of the pipes and cylinders in a box, for heating the cars by steam in cold weather.

See Drawing No. 477.

HENRY MILLER.

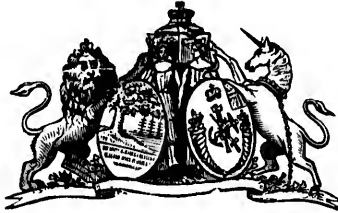
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A. D. 1854.—(CANADA.)—No. 478.

An Improved Bedstead.

LETTERS PATENT to Robert E. Stephens, of the Town of Sydenham, in the County of Grey, gentleman, for the invention of
"AN IMPROVED BEDSTEAD."

Quebec, dated 20th Oct., 1854.

BRIEF DESCRIPTION.

It consists in adding to the ordinary Bedstead an additional rail either on one side or one end, placed below or above the ordinary one, while the rail in which the knobs, to which the cord is attached, are fixed turns upon its axis, having on one end the ratchet wheel with the ratchet or stops fixed in the post. This ratchet wheel is similar in principle to the one used by the weaver in tightening the web in his loom, therefore making it easy, at any time, by simply turning the rail to tighten the cords or canvas which may be used instead of, and which must be preferable to cords; and finally in the application of the ratchet wheel to cording and tightening the cords or canvas on bedsteads.

ROBERT E. STEPHENS.

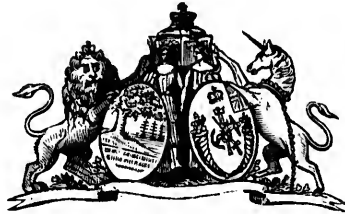
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A. D. 1854.—(CANADA.)—No. 479.

A Central Discharge Water Wheel.

LETTERS PATENT to John H. Gatiss, of the Township of Barton,
in the County of Wentworth, Mineralogist, for the invention of
“ A CENTRAL DISCHARGE WATER WHEEL.

Quebec, dated 28th Oct., 1854.

BRIEF DESCRIPTION.

There is a flume or outer enclosure within which, at the base, is the curb, which is a true circle in its form, having six gates; to the shaft are attached eight buckets, the arms of which reach the centre of the shaft; the aperture through which the water is discharged, is that through which the shaft descends, and the diameter of which is necessarily somewhat larger than the diameter of the shaft; the cover of the curb is water tight, and upon this cover is placed the square tube which protects and encloses the shaft, the gates descend through the cover, and are raised and lowered in the usual way. The invention consists in there being a direct application of the water upon all the buckets as soon as the gates are raised, and the discharge, being in the centre, leaves the whole action of the water upon the buckets; where there is a discharge at the side the motion of the bucket is impeded at that point, and the obstacle becomes the greater by the back water necessarily formed. It can be used with less head of water

Gatiss' Water Wheel.

than any other, and upon a dead level, and the wheel is not affected by back water, or if at all, to a very trifling extent.

See Drawing No. 479.

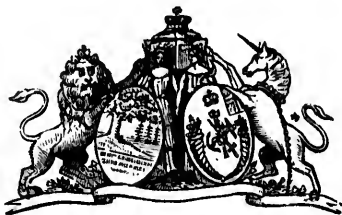
JOHN H. GATISS.

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A. D. 1854.—(CANADA.)—No. 480.

*A New and Useful Process for Depriving Hides
and Skins of the Hair, Wool, Fur, or Bristles,
Preparatory to being tanned.*

LETTERS PATENT to Henry Charles Lindo, of the City of Quebec,
Chemist, for the invention of "A NEW AND USEFUL PROCESS FOR
DEPRIVING HIDES AND SKINS OF THE HAIR, WOOL, FUR, OR
BRISTLES PREPARATORY TO BEING TANNED."

Quebec, dated 19th Oct., 1854.

BRIEF DESCRIPTION.

It consists in using the following alkalies rendered more caustic by the addition of small portions of quick lime, viz: sal soda, carbonate or super carbonate of soda, pot or pearl ash, and sulphurets of any of the above mentioned alkalies, or any other Compounds substantially the same.

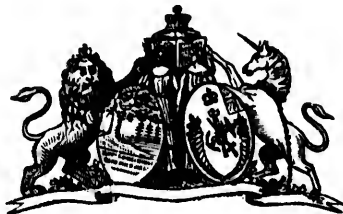
HENRY CHARLES LINDO.

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A. D. 1854.—(CANADA.)—No. 481.

*Certain Improvements in Machinery or Apparatus
for effecting Agricultural operations.*

LETTERS PATENT to Robert Romaine, of Peterborough, in the County of Peterborough, for the invention of "CERTAIN IMPROVEMENTS IN THE APPARATUS FOR EFFECTING AGRICULTURAL OPERATIONS."

Quebec, dated 19th Oct., 1854.

BRIEF DESCRIPTION.

It consists, in *Firstly*, the general arrangements and construction of machinery apparatus or means for accomplishing agricultural operations; *Secondly*, in the system or mode of digging or disintegrating the soil and of reaping, mowing and performing other agricultural operations, by means of mechanism actuated directly by steam power, but traversed or conveyed over the land by horse or other separate power, the same being applicable for cutting drains; *Thirdly*, in the application and use in digging or pulverising operations of a digging or soil loosening cylinder, which is driven at a high velocity by steam power; *Fourthly*, in the application and use of spring hinged arms for receiving the cut grain or other crop; *Fifthly*, in the application and use of a hollow or tubular driving or first motion shaft, arranged to work loose upon the axle of the supporting running wheels; *Sixthly*, in the system or mode of driving the main running wheels, whereby the machine is rendered self locomotive; *Seventhly*, in the system or mode of digging

Romaine's Improved Agricultural Apparatus.

or disintegrating the soil, and of reaping, mowing, and performing other agricultural operations by means of mechanism actuated directly by steam power, but assisted or conveyed over the land by horse or other separate power, the same being applicable for the cutting of drains; *Eighthly*, in the simplified arrangements and the use of the steam cylinder and valve and gearing; *Ninthly*, in the use of a machine in which the horse or actuating medium goes before the pulverising apparatus in digging, preparing, and sowing, and behind it when reaping and mowing; *Tenthly*, in the mode of arranging the platform wheels with the large running wheels; *Eleventhly*, in the mode of supporting the digging cylinder or rotary arms; and, *Twelfthly*, in the mode of facilitating the turning of the machine at the headlands.

See Drawing No. 481.

ROBERT ROMAINÉ.

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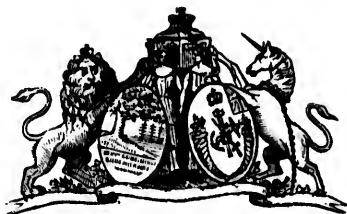
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A. D. 1854.—(CANADA.)—No. 482.

A Machine for making Nuts and Washers from a heated bar of metal.

LETTERS PATENT to Charles Horatio Waterous, of the Town of Brantford, in the County of Brant, Machinist, for the invention of "A MACHINE FOR MAKING NUTS AND WASHERS FROM A HEATED BAR OF METAL."

Quebec, dated 8th November, 1854.

BRIEF DESCRIPTION.

It consists *firstly*, in cutting from a heated bar of metal a blank, punching the same and compressing it into shape of a nut or washer by a blow and at one simultaneous and instantaneous operation; *secondly*, in the combination of the punch and dies with a piston rod or hammer, operated by the action of steam or compressed air, for making nuts and washers from heated metal, and discharging the same, when formed by the simultaneous action of these devices; *thirdly*, in the method of instantly discharging the nut or washer from the chamber in which it is formed by the backward stroke of the piston or hammer, so that the heated metal shall not remain in the die to impart its heat and injure the tool; and *fourthly*, in the combination of the metallic plates H, II, to ease the action of the punch and dies.

See Drawing No. 482.

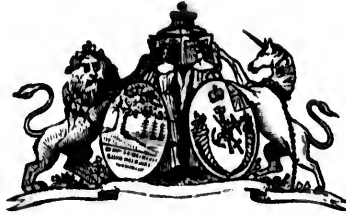
CHARLES HORATIO WATEROUS.

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A. D. 1854.—(CANADA.)—No. 483.

A New Mode of preventing Railroad Cars from running off the track or rail, consisting of a Safety Hook.

LETTERS PATENT to Charles Du Berger, of the Parish of Eboulements, in the County of Saguenay, Registrar, for the invention of "A NEW MODE OF PREVENTING RAILROAD CARS FROM RUNNING OFF THE TRACK OR RAIL, CONSISTING OF A SAFETY HOOK."

Quebec, dated 7th November, 1854.

BRIEF DESCRIPTION.

The track or rail is of an angular form, and there is at the top of the angle an edge, forming likewise an angle, which gives the track or rail almost the form of a Z, with the exception that the angles are right angles; the edges inside the rail correspond with the safety hook, which, fixed under the car, to the block, or otherwise, enters under the edge, so that the wheel cannot run off the rail; the angle of the rail and that of the wheel corresponding with it, is rounded to lessen the friction of the wheel on the side of the rail; on the lower end of the safety hook, which corresponds with the edge of the rail, is fixed a roller, to prevent the friction of the safety hook on the rail, should the wheel by some accident show a tendency to run off the

Du Berger's Safety Hook.

rail; to prevent snow or mud from collecting into heaps on the rail, a scraper may be fixed under the cow-catcher (defence), with which every locomotive is provided, without pressing or weighing too much on the rail; this safety hook may, likewise, be applied to rails of about the form of those now in use on rail roads, a slight alteration only being required. On railroads thus built, the occurrence of accidents by the running of the cars off the rail is impossible, as in the curves where cars generally tend to run off the track, the safety hook will very easily keep the wheel on the rail, and should the wheel meet with a small stone or other like body, it would be crushed, and the cars kept safely on the rail or track.

See Drawing No. 483.

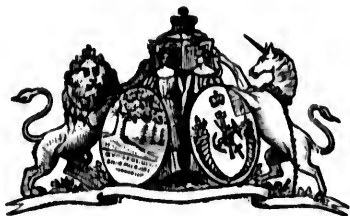
CHARLES DU BERGER.

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A. D. 1854.—(CANADA.)—No. 484.

A New and Improved Method of making Gas, and applying it to and for the purpose of Illumination, or heating, or any other use to which gas is now applied, by the dry distillation of ripe sun-flower, flax, castor oil beans or seed, and all other seeds, all grains, and all nuts, whole or cracked, with or without hulls, husks, chaff, or shells.

LETTERS PATENT to Samuel Cutter, of the City of Montreal, Machinist, for the invention of "A NEW AND IMPROVED METHOD OF MAKING GAS, AND APPLYING IT TO AND FOR THE PURPOSE OF ILLUMINATION, HEATING, OR ANY OTHER USE TO WHICH GAS IS NOW APPLIED, BY THE DRY DISTILLATION OF RIPE SUN-FLOWER SEED, FLAX, CASTOR OIL BEANS OR SEED, AND ALL OTHER SEEDS, ALL GRAINS, AND ALL NUTS, WHOLE OR CRACKED, WITH OR WITHOUT HULLS, HUSKS, CHAFF, OR SHELLS."

Quebec, dated 7th November, 1854.

BRIEF DESCRIPTION.

Figure 1 represents an elevation of the gas apparatus, which is on the same principle as those now universally used. *A*, is the furnace; *B*, the retort; *C*, the rising pipe; *D*, the hydraulic main, with a cock or tap on a level with the water line; *E*, the pipe to the

Cutter's Method of making Gas.

gasometer, with another cock or tap at the water level; and *G*, the main. *Figure 2* represents a plan of the same. The gas is made or generated as follows:—Either kind separately, or any or all kinds mixed, in any and all proportions together in a dry state, is or are put in the retort through the ordinary aperture, and after being filled to the top, is or are subjected to a dry red heat from fire put into the furnace, which fire is made of wood, peat, coal, coke, or gas, and in a short time, to wit, in an hour, the gas rises as generated, and passes through the rising pipe into the hydraulic main, which has a cock or tap at the water level; then passes through the pipe into the gasometer, which gasometer has a cock or tap at the water level; then passing and rising through the water in said gasometer, by which water it is cooled, enters and passes through the main, and from the main into the burners directly; or, if desired, the gas may, on leaving the main, pass through the gasometers now in use into the burners. The cocks or taps in the hydraulic main *D*, and in the gasometer *F*, are to let off the vegetable oil which collects on the water in each and both.

See Drawing No. 484.

SAMUEL CUTTER.

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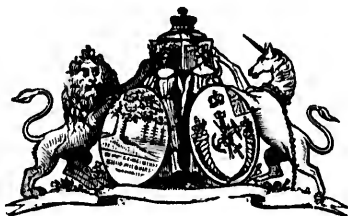
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A. D. 1854.—(CANADA.)—No. 485.

A New Polishing Buff, called the Wheel or Hand Buff, for Daguerreotypic purposes.

LETTERS PATENT to Léon Antoine Lemire, of the City of Quebec, Daguerreotypist, for the invention of "A NEW POLISHING BUFF, CALLED THE WHEEL OR HAND BUFF, FOR DAGUERREOTYPIC PURPOSES."

Quebec, dated 14th November, 1854.

BRIEF DESCRIPTION.

The buffs are manufactured in the same manner as other polishing buffs for daguerreotypic purposes, except that the leather in the manufacturing thereof is *porpoise leather*. The leather, before its being applied to the said purpose, must be heated for at least six days, at a heat varying from sixty to eighty degrees. When affixed to the buff it must be highly polished in order that the buff may be complete and ready for use. Figures 1 and 2 represent wheel buffs; figures 3 and 4, hand buffs. The invention consists in the manufacture of the said buffs with porpoise leather, which, when prepared as above described, gives a more finishing polish to the plate than any other leather, and reduces the time of the operation more than three-fourths.

See Drawing No. 485.

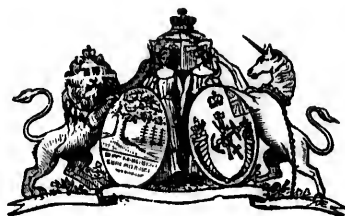
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A. D. 1854.—(CANADA.)—No. 486.

*A New and Useful Machine, or Implement of
Agriculture, entitled, The Canadian Thistle
Killer and Cultivator.*

LETTERS PATENT to Rodolphus Lounsbury, of the Township of Grimsby, and Nathaniel Griffin Lyons, of the Township of Cais-tor, both in the County of Lincoln, Yeomen, for the invention of
“A NEW AND USEFUL MACHINE, OR IMPLEMENT OF AGRICUL-TURE, ENTITLED, THE CANADIAN THISTLE KILLER AND CUL-TIVATOR.”

Quebec, dated 8th December, 1854.

BRIEF DESCRIPTION.

A, is a strong beam, to which the handles *B*, coulters *C*, and guide *D*, are attached, as well as the sock and brace *E*, and expanding braces *F*, which latter slide in set bolts, for contracting or expanding the iron or steel shares *G*, that run the whole length of the machine, and turn upon two small bolts *H*, attached to the sock and point *E* and *I*. For ridging up corn, potatoes, &c., two small wrought or cast iron mould-boards, *J*, can be put on or taken off. When the machine is used for clearing land of weeds and thistles, the thin shares, which may be of wrought or cast iron or steel, or steel laid upon iron, skim a little below the surface, cutting off these vegetable substances in the most certain manner, and well adapted for fallows and other ground:

Lounsbury & Lyons' Canadian Thistle Killer.

a small triangular harrow may be used to mellow the soil in some cases, by dragging behind this and in front of the holder. The guide *D*, is a broad curved piece of steel or iron, which keys into the beam, and prevents the shares from deviating from a straight line when they come in contact with any hard substance, and is set to any required depth for that purpose. The machine is drawn by one or two horses attached to the clevis, *K*. The invention consists in the application of the long shares, which extend the whole length of the machine, and have an uninterrupted cutting edge, which can be expanded to any required width; in the adaptation of mould-boards to the same; and in the application of a guide to prevent the machine sliding from a straight line.

See Drawing No. 486.

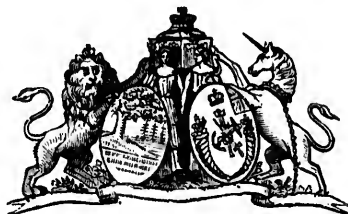
RODOLPHUS LOUNSBURY.
NATHANIEL GRIFFIN LYONS.

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A. D. 1854.—(CANADA.)—No. 487.

A Machine for clearing Snow from off Railway Tracks, to be called Thomas' Snow Exterminator.

LETTERS PATENT to Robert Thomas, of the City of Quebec, Master Mariner, for the invention of "A MACHINE FOR CLEARING SNOW FROM OFF RAILWAY TRACKS, TO BE CALLED THOMAS' SNOW EXTERMINATOR."

Quebec, dated 30th November, 1854.

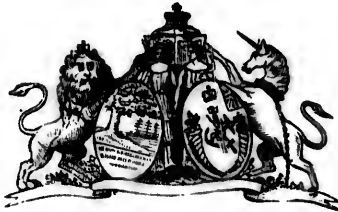
BRIEF DESCRIPTION.

There is a furnace of a circular form, enclosed in a cylinder, which revolves round it, and runs on the track. Within the furnace is a lining, which forms the flue; the smoke passing in this flue completely round the fire, then through an opening, and ascending between the furnace and the revolving cylinder, makes its exit at both ends of the cylinder. In the ends of this track cylinder are two open circles, the smaller ones for the admission of air, and the larger ones for the admission of smoke; most of these circles are covered by circular plates which do not revolve. The smoke may be made to pass at once between the furnace and the track cylinder, through an opening a little above the centre of the furnace. In both these cases, the snow is dissolved by radiation of heat; or the surface of the track cylinder might be made open, instead of close, and the flame and

Thomas' Snow Exterminator.

smoke made to act at once on the snow, through an opening near the centre of the furnace opposite the bucket cylinder ; in this latter case, the snow will be dissolved by the direct action of the flame and smoke coming in contact with it : if this method were adopted, the machine would be very much simplified. The invention consists in the clearing of rail-road tracks from snow by means of revolving cylinders and heat, by which the snow is taken up and dissolved, either by a radiation of heat, or the direct action and contact of the flame and smoke, and is carried off the track in the form of water.

ROBERT THOMAS.



A. D. 1854.—(CANADA.)—No. 488.

A Potato Digger.

LETTERS PATENT to Alexander Anderson, of the Township of Markham, in the County of York, Carpenter, for the invention of "A POTATO DIGGER."

Quebec, dated 13th December, 1854.

BRIEF DESCRIPTION.

Number 1 represents driving-wheels, three feet four inches in diameter, made as a waggon wheel, with wooden naves or hobs, but without metal boxes. Number 2, on the drawing, represents a cog-wheel of cast iron, the centre being cast sufficiently large to compass the hub of the driving-wheel. Number 3, one side of the frame, to the end of which an iron coulter is fastened. Number 4, one side of the frame, to which the cylinder and share are attached. Number 5, one of the handles by which the share is raised out of work, when turning, or travelling to or from the field. Number 6, a pinion-wheel made fast to the end of an iron rod or axle, which passes through the centre of the cylinder, marked 2. Number 7, a side view of the share or shovel. Number 8, the coulters, or side shares, for throwing off stones and waste ground, to open the way to the edge of the shovel, marked 7. Number 9, one of the posts between which the tongue (marked 12) is placed, with holes in it to

Anderson's Potato Digger.

regulate the depth of the shovel by means of a fly block, with a hole in the centre, through which a bolt passes, regulated at will by the driver, by means of a cord passing from the fly block to the hands, marked 5. Number 10, the position of the block when the machine is at work. Number 11, a cord which, when slackened and the handle pressed down, makes the block fall lengthwise between the posts, and rests in a niche in the upper side of the tongue to receive it, which keeps the share out of the ground when turning, or travelling to or from the field. Number 12, represents the tongue resting on the top of the axle acting as a lever from fly block, to make it unnecessary to have any additional weight to prevent the wheel from sliding and stopping while at work. And Number 13, represents the axle, which is a piece of oak scantling four inches square, the ends of which are turned into arms, on which the driving-wheels revolve.

See Drawing No. 488.

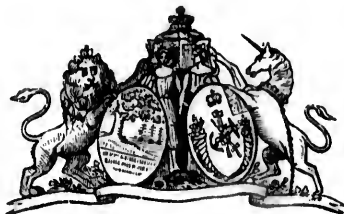
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A. D. 1854.—(CANADA.)—No. 489.

A New and Useful Improvement in the construction of Portable or Stationary Steam or Water Saw Mills.

LETTERS PATENT to James Blanchfield Smith, of North Cayuga, in the County of Haldimand, Millwright, for the invention of "A NEW AND USEFUL IMPROVEMENT IN THE CONSTRUCTION OF PORTABLE OR STATIONARY STEAM OR WATER SAW MILLS."

Quebec, dated 6th December, 1854.

BRIEF DESCRIPTION.

A, represents a steam engine; *B*, the connecting rod or shaft attached to the crank-pin, *C*; the crank, *N*, is attached to one end of the shaft, *D*, with the saw, *E*, on the opposite end of the same shaft; *K*, is a fly balance wheel; *H, H*, are reverse pulleys intended to run the belt from one end to the other by hand, to change the amount of feed, one of them being placed on the main shaft or saw mandril, *D*; the other placed on small shaft *O*, which contains screw wheel *G*, working in notch wheel *p*, driving shaft *g*, which contains mitre wheel *F*, driving mitre wheel *R*, placed on shaft *S*, which contains pinion *L*, working on the rack or carriage, giving any required feed for the circular saw. Mitre wheel *F*, is placed out of gear by a movable bridge tree *R*, in order that the motion shaft *S* may be re-

Smith's Stationary Steam or Water Saw Mills.

versed by tightening a loose belt on pulleys *i, i*, and serve to run back the carriage. *I* is an extra pulley, intended to drive any other machinery that may be required. If, instead of steam, water-power be used, by moving an upright shaft or rod, *B*, driving a spur wheel acting on a pinion placed on the main shaft or saw mandril, *D*, the same result will be obtained. The invention consists generally in the simplicity of construction of the said saw mill, and making it portable, but especially in the direct application of steam or water power by the connecting rod or shaft, *B*, to drive the circular saw.

See Drawing No. 489.

JAMES BLANCHFIELD SMITH.

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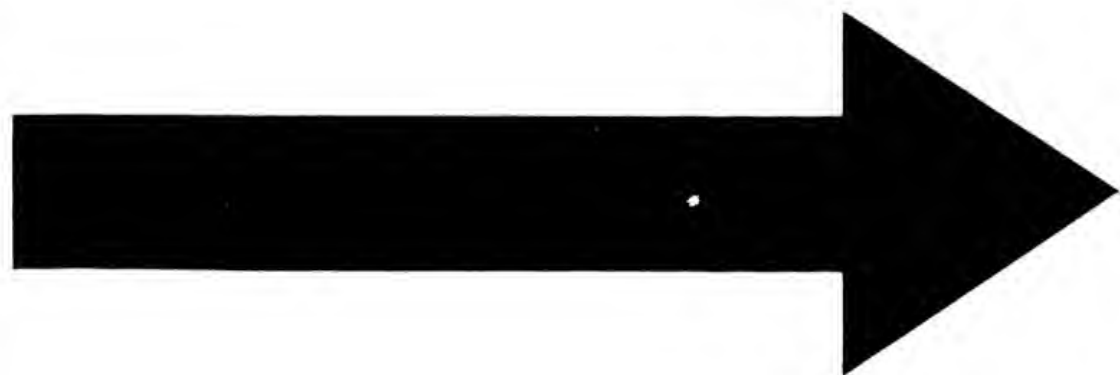
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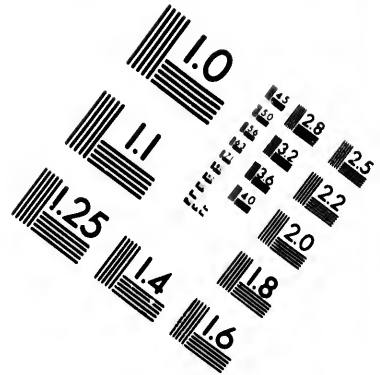
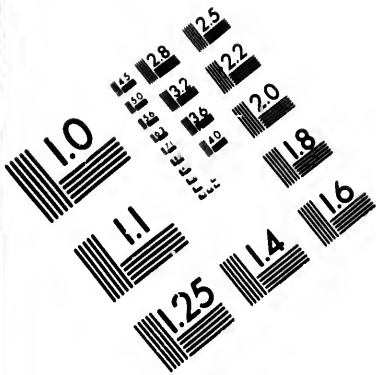
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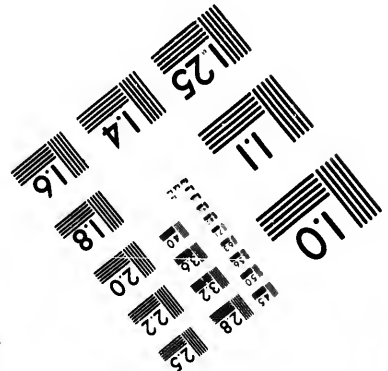
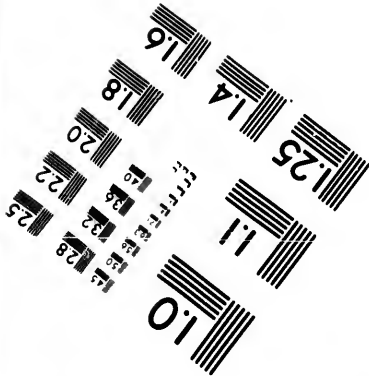
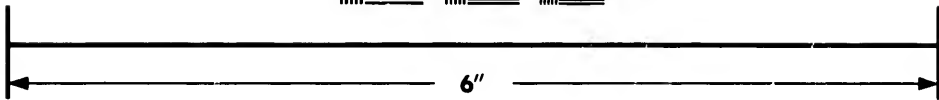
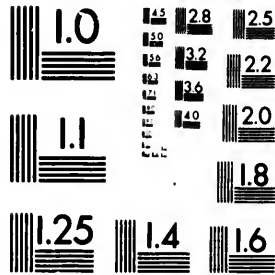
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**IMAGE EVALUATION
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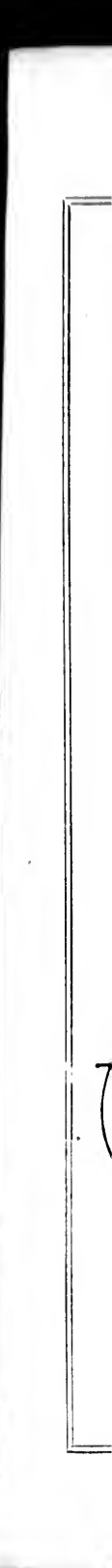
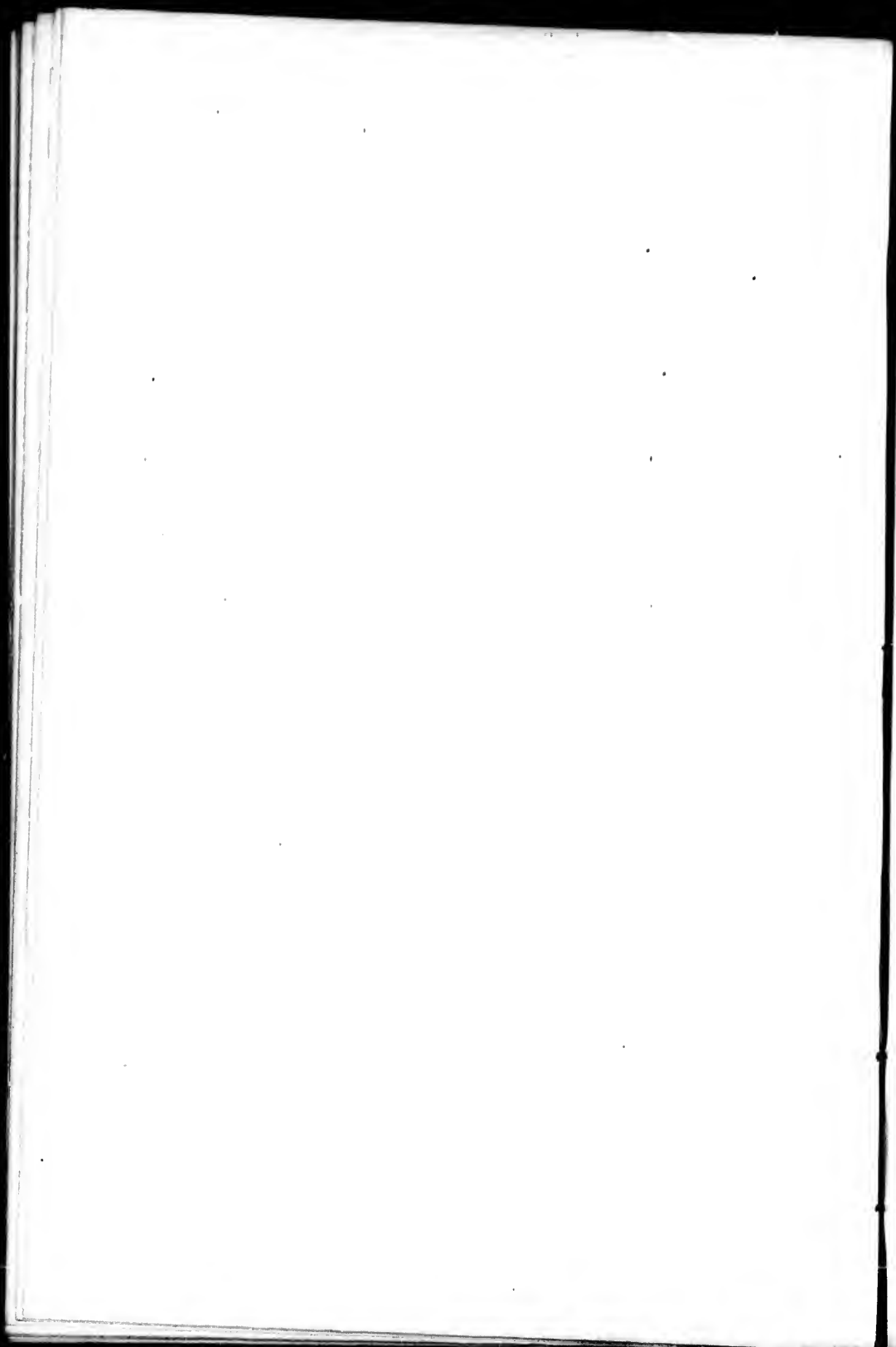
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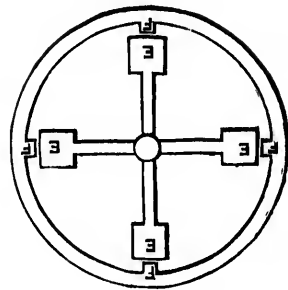
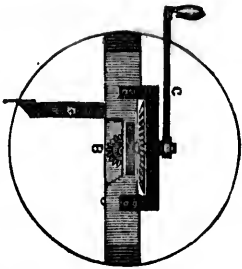
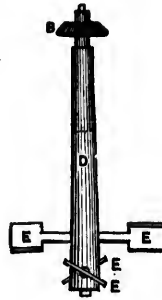
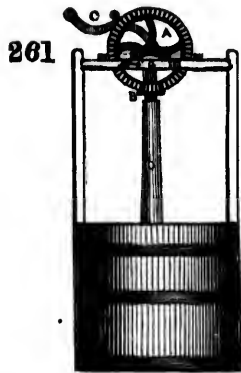
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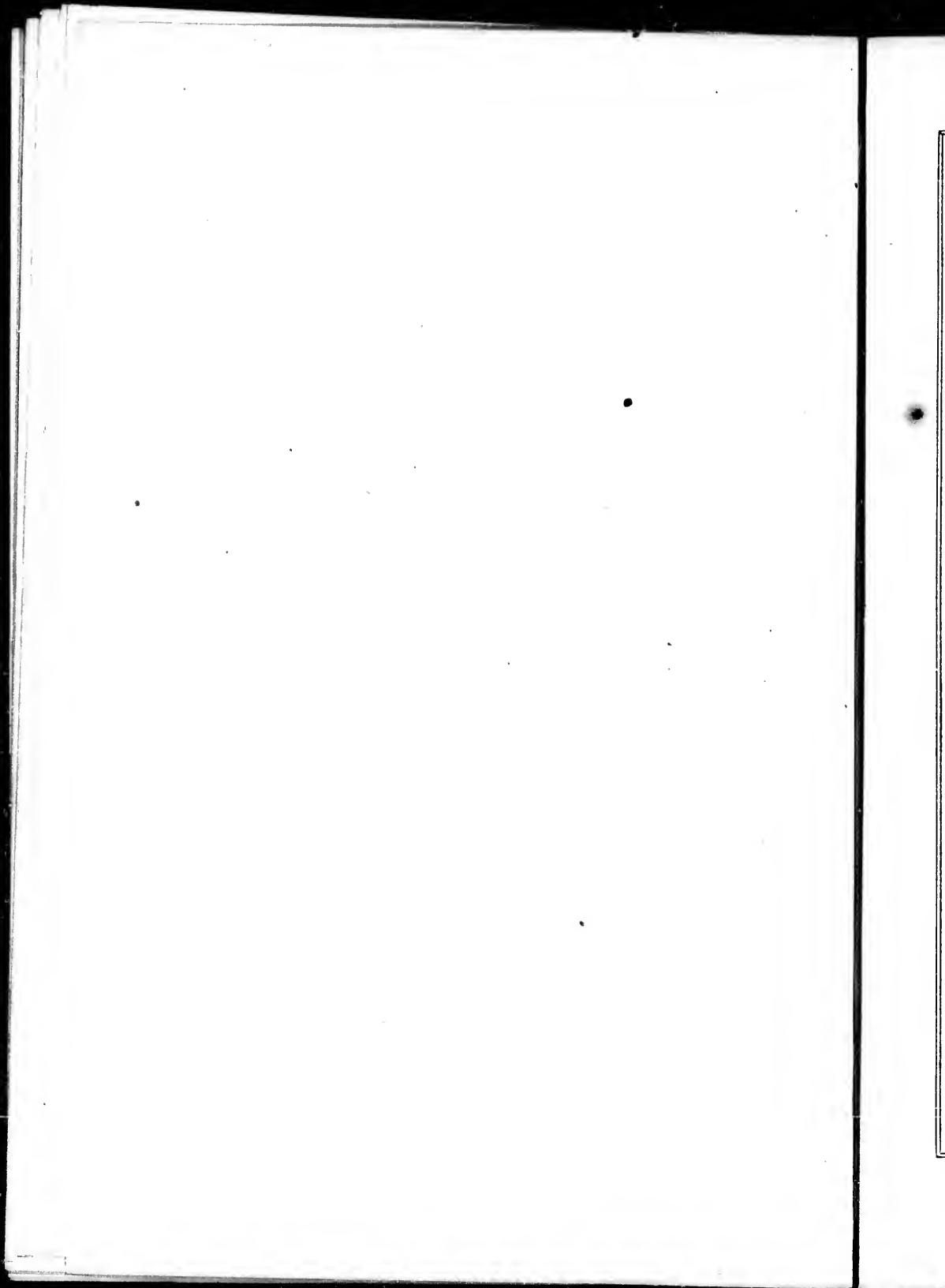
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DRAWINGS.



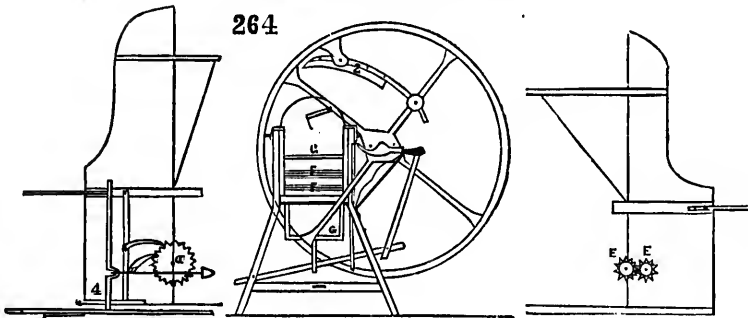
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Tremain's Straw Cutter.

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Mandigo's Improved Plough.

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FIG. 1

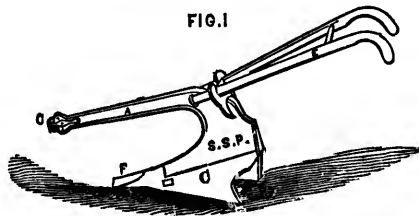


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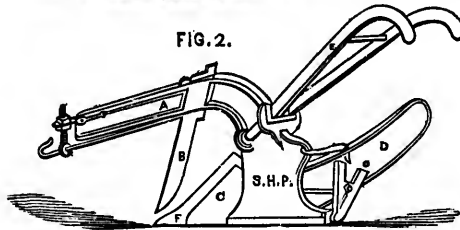
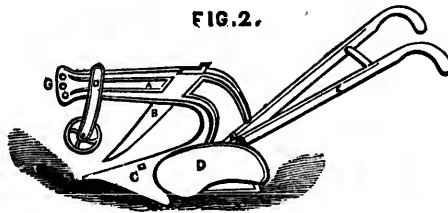
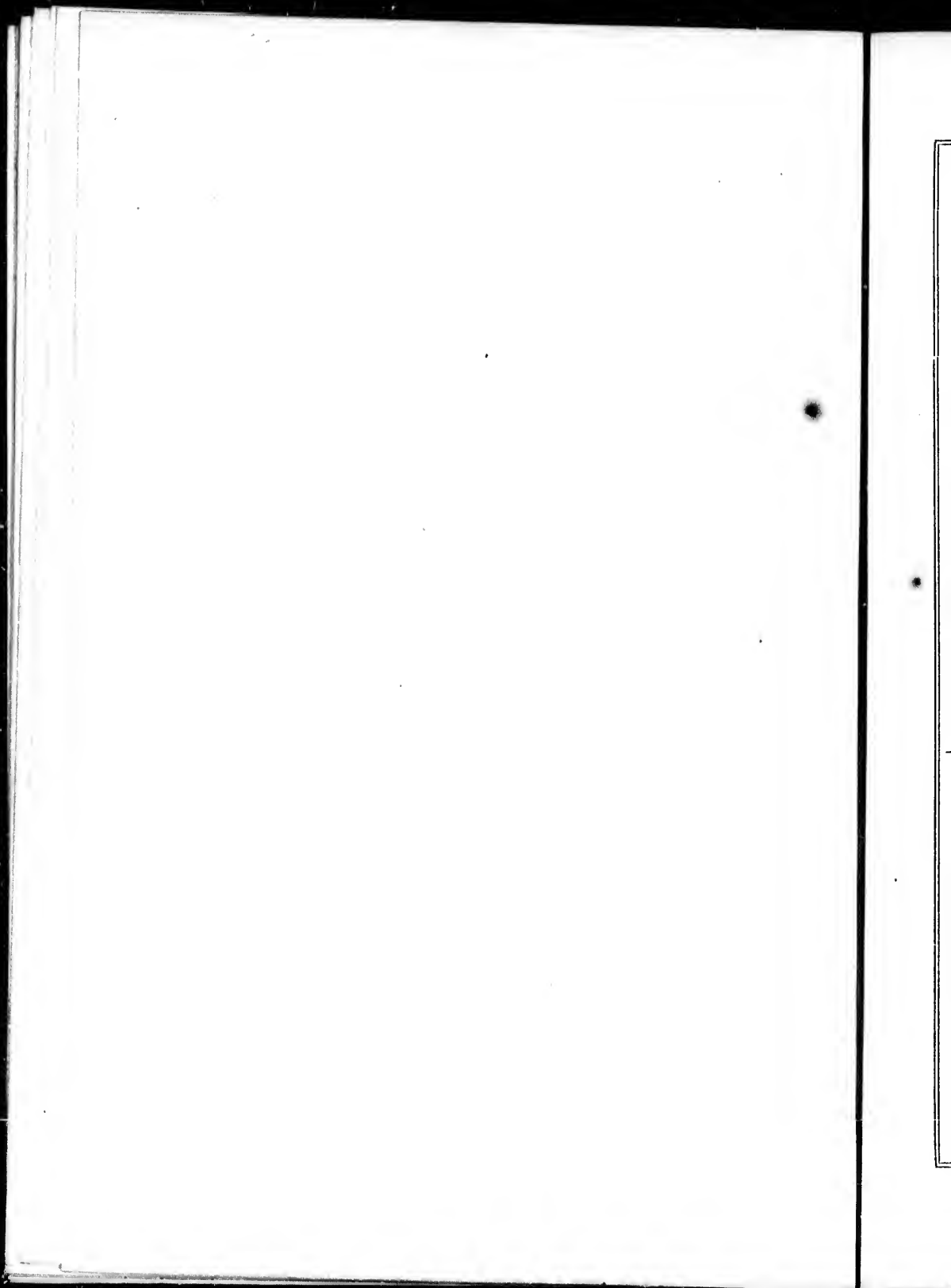
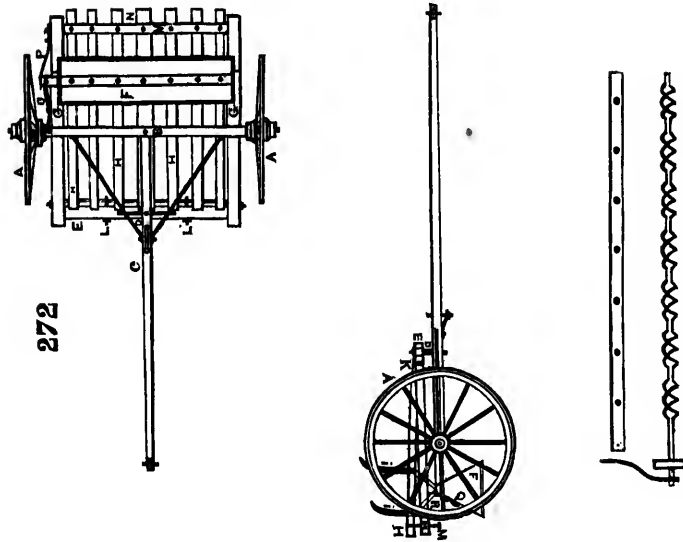


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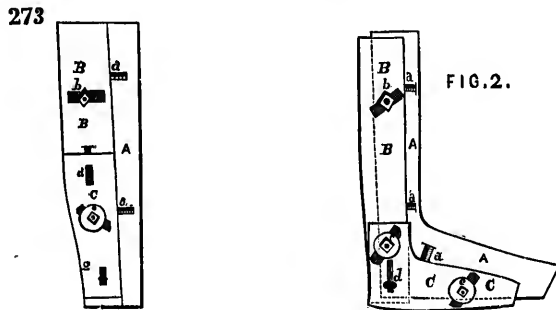


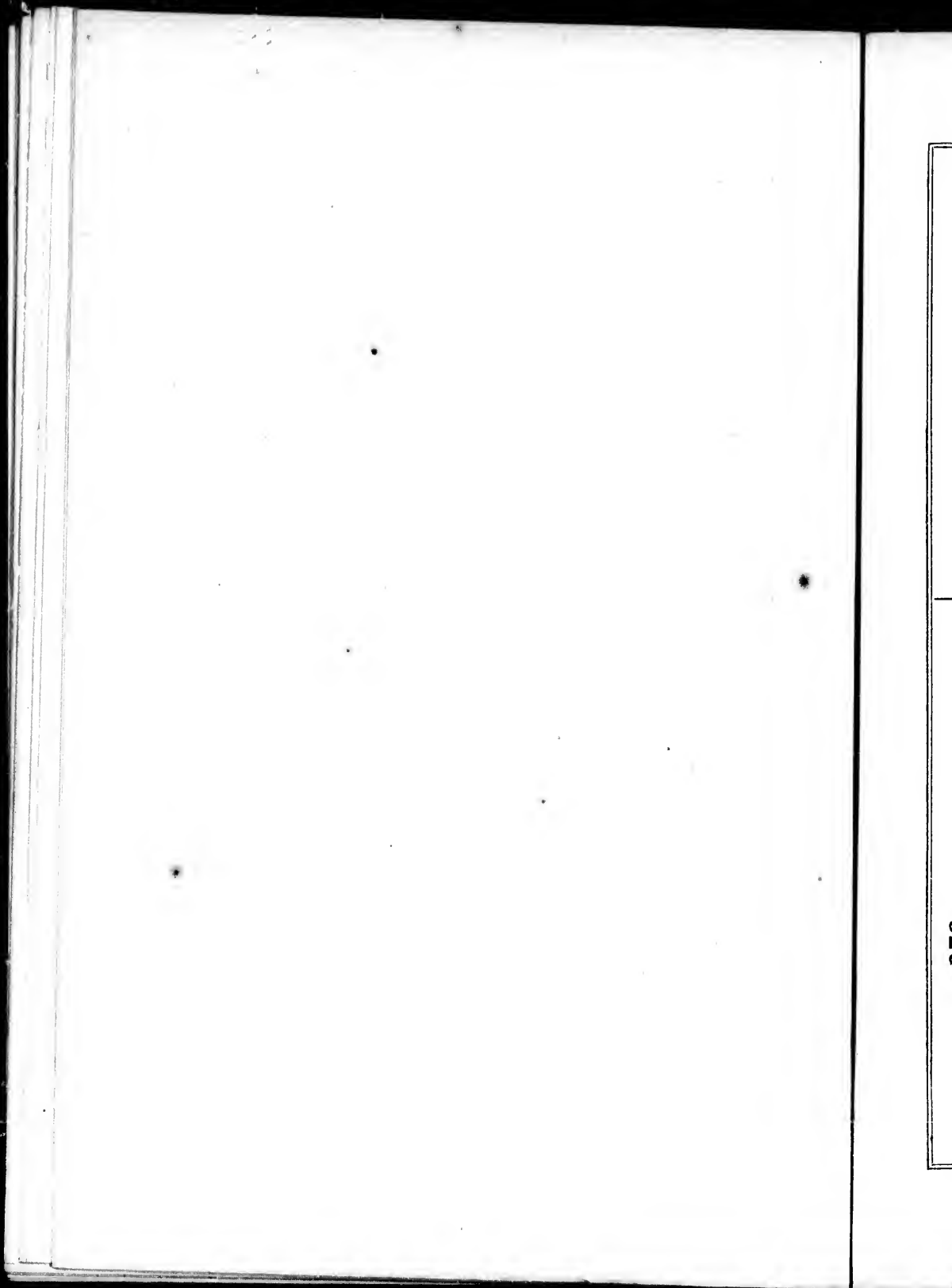


Nixon's Drilling Machine.



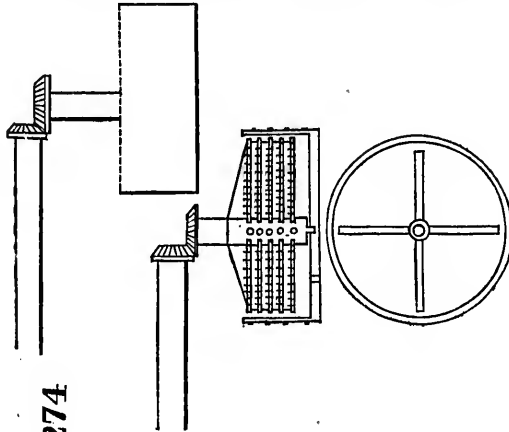
Sampson's Root Machine.





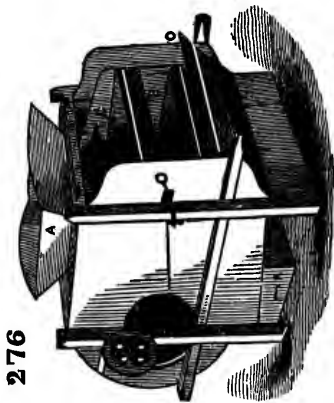
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Penney's Process of Tanning Leather.



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Willson's Fanning Mills.



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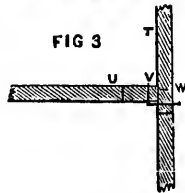


FIG 3

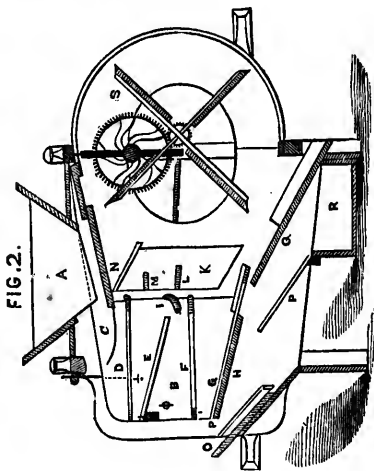
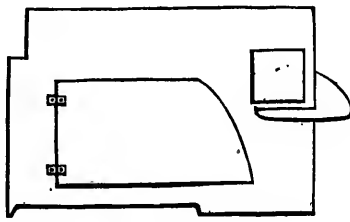
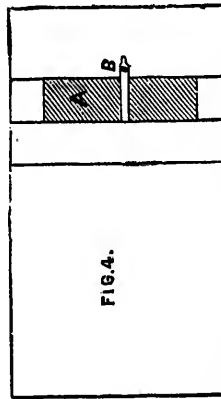
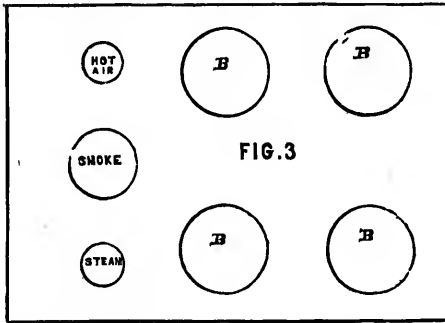
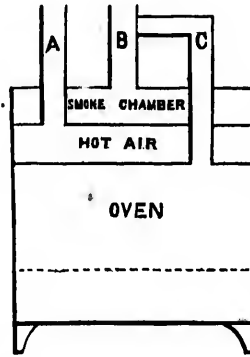
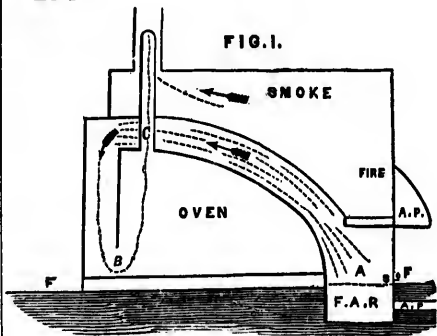


FIG. 2.



Carter's Hot Air Cooking and Heating Stoves.

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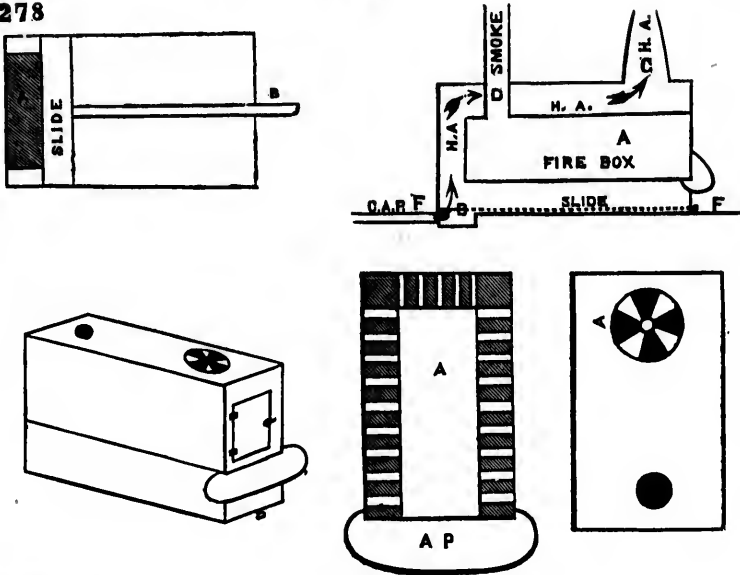


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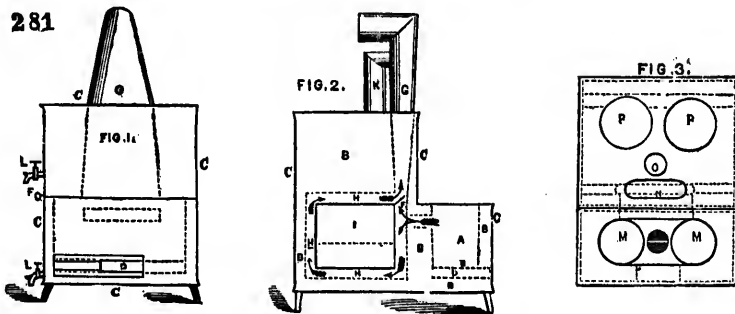
Carter's Ventilating Air Stoves.

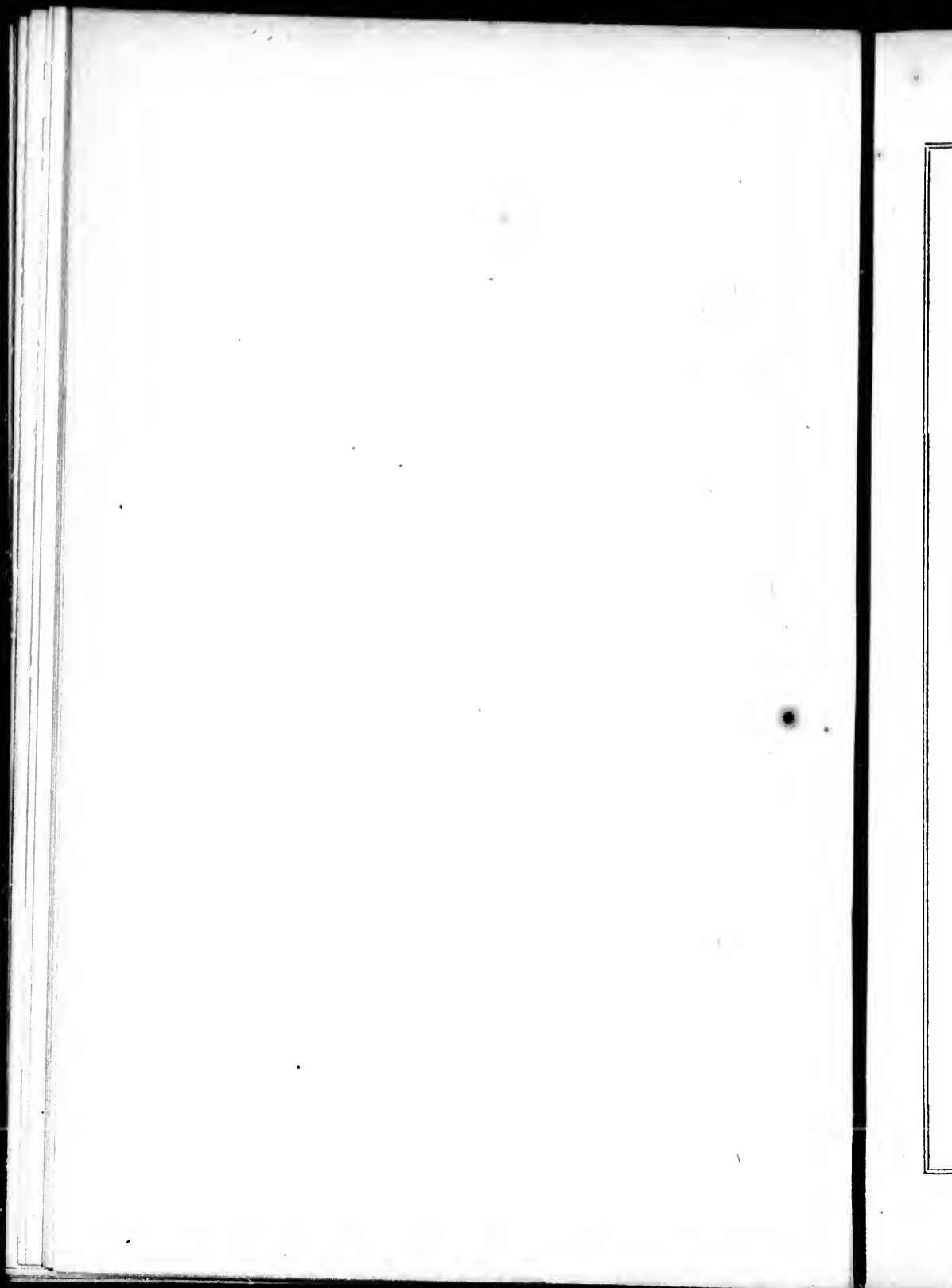
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Wilbur's Cooking Stove.

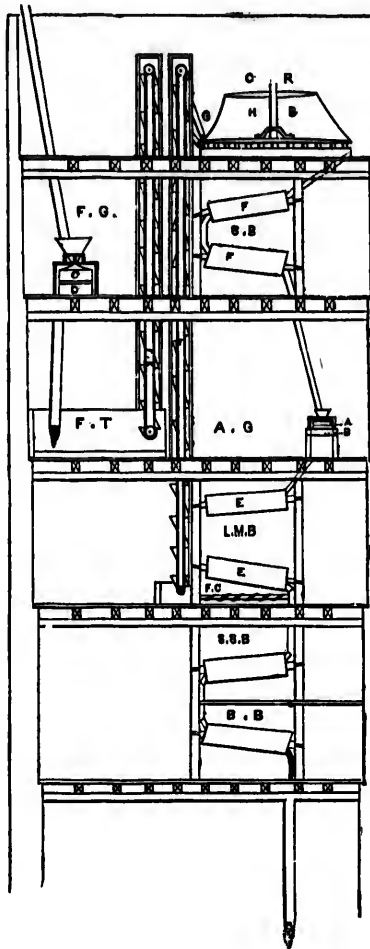
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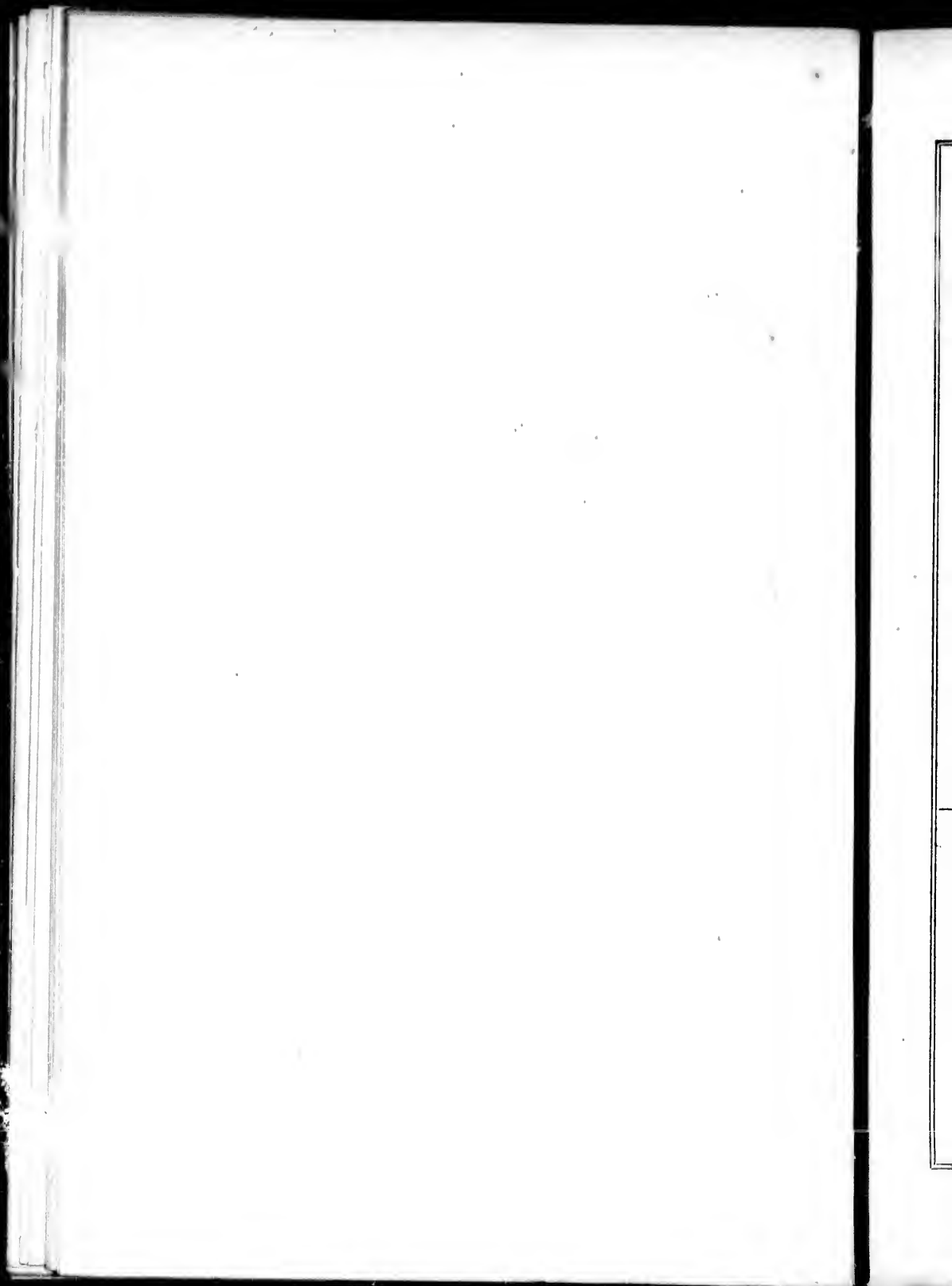




Bonnell's Process of Grinding Wheat and other Grain.

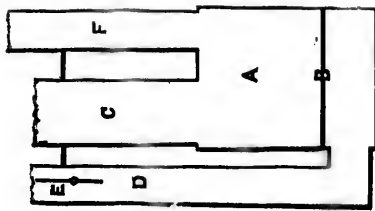
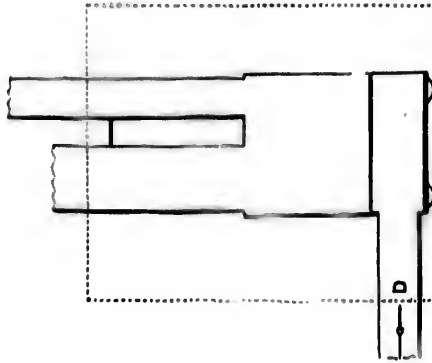
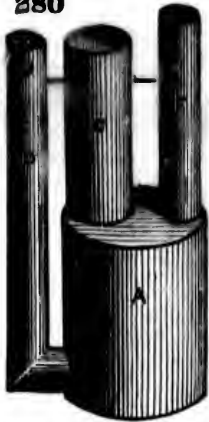
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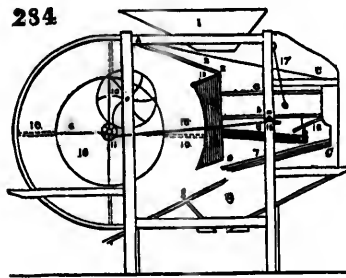
Wilbur's Improved Water Heater.

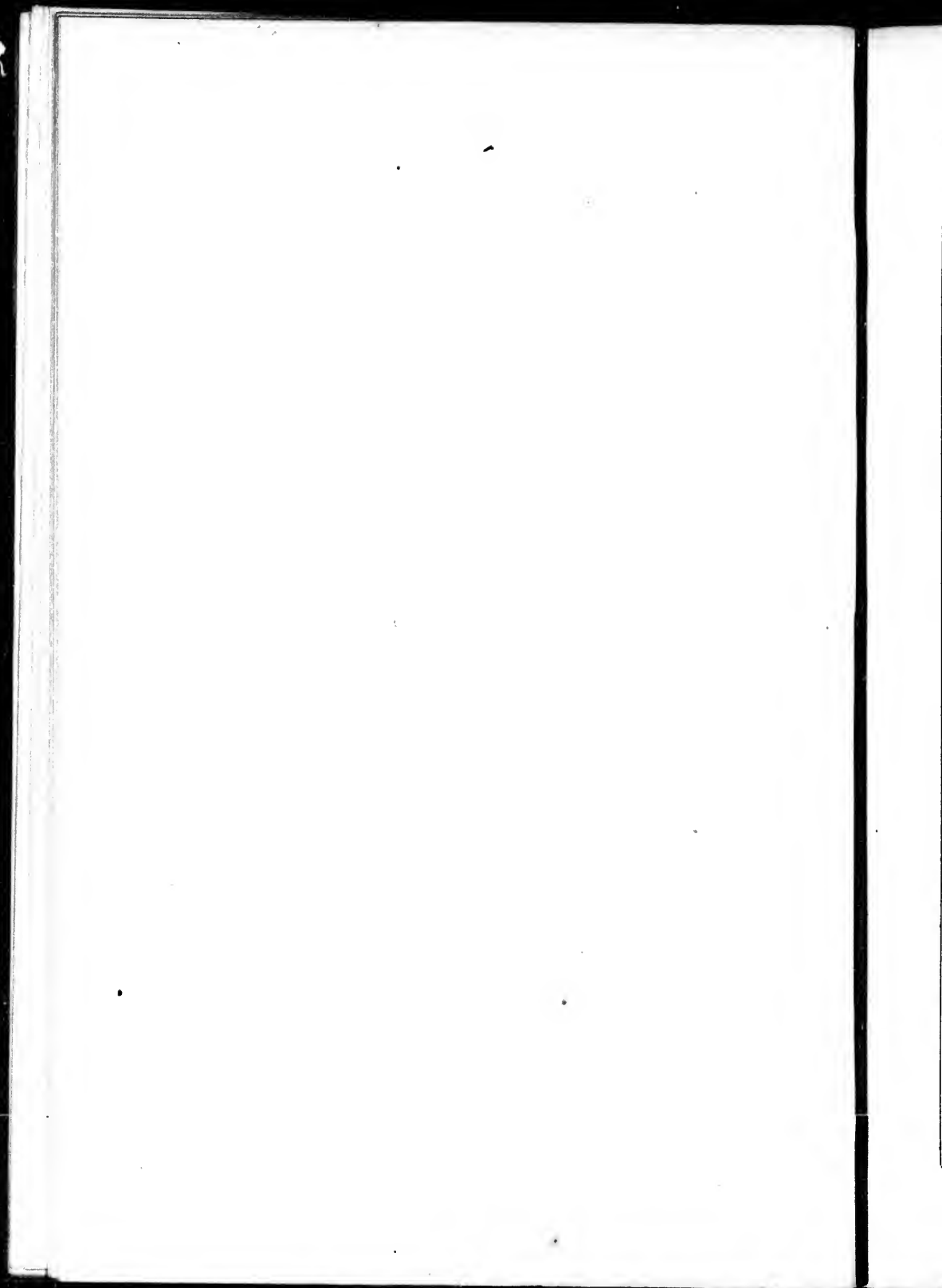
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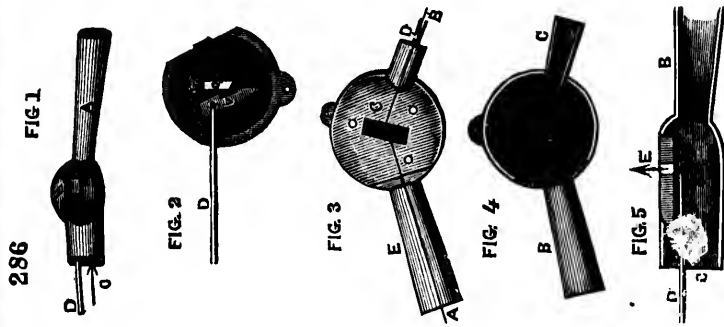
Houck's Fanning Mill.

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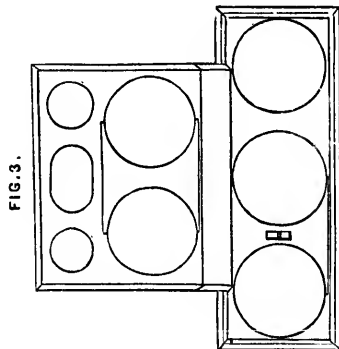
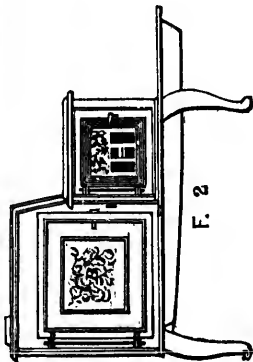
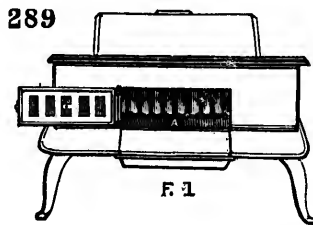


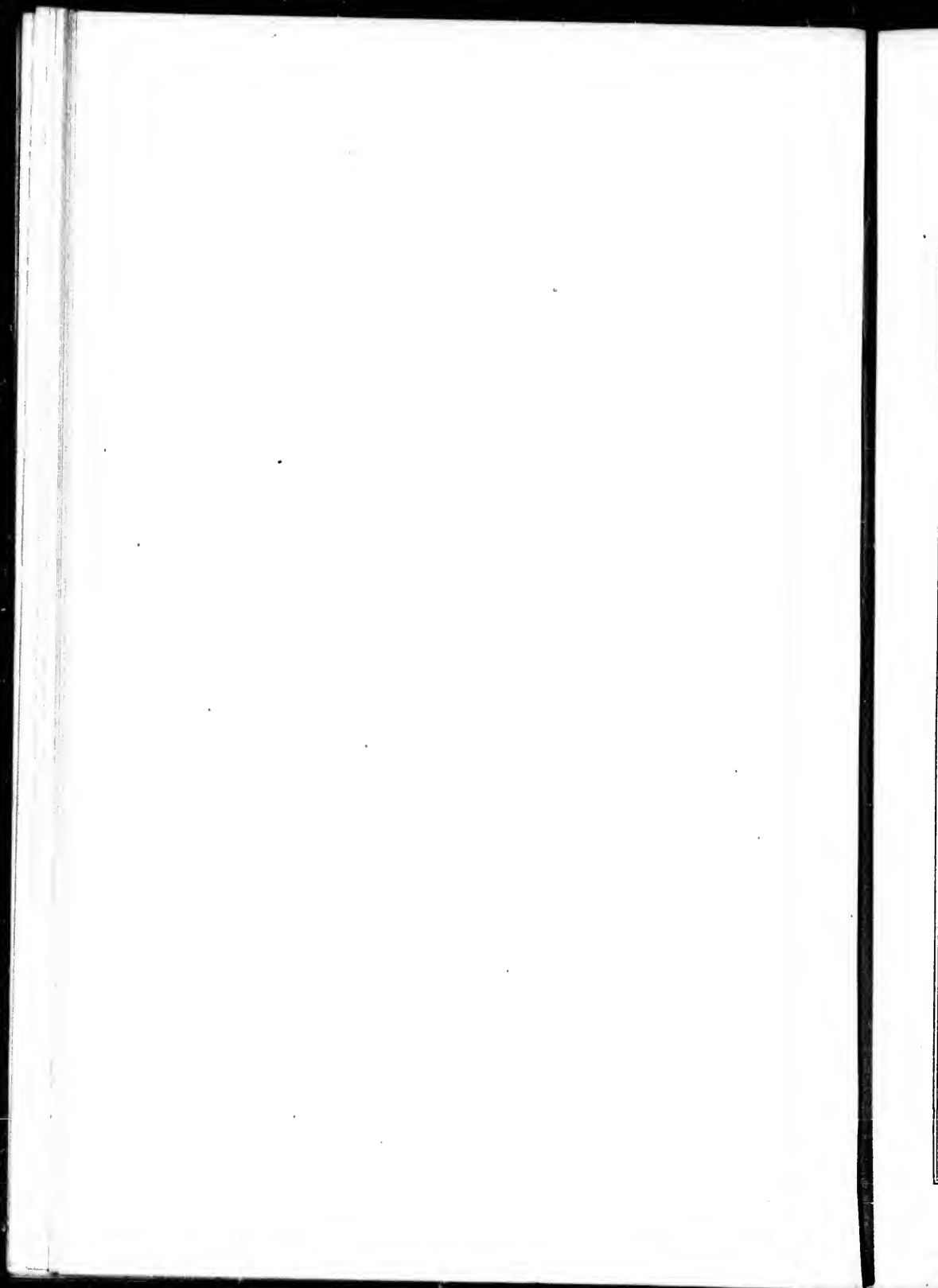


Barnes' Blast Regulator.



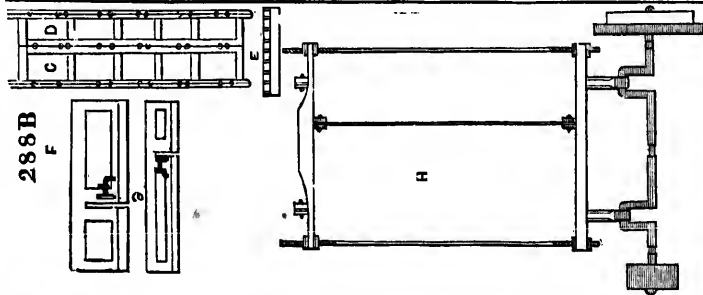
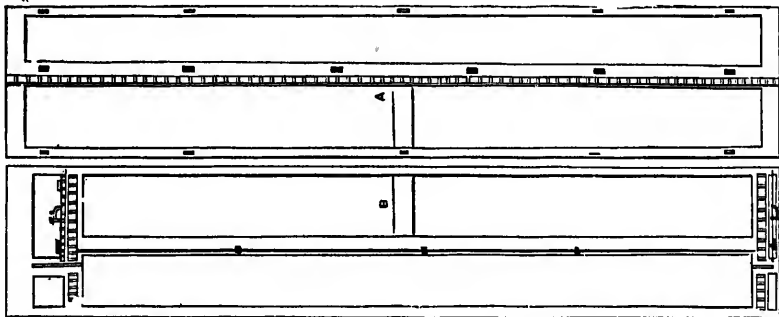
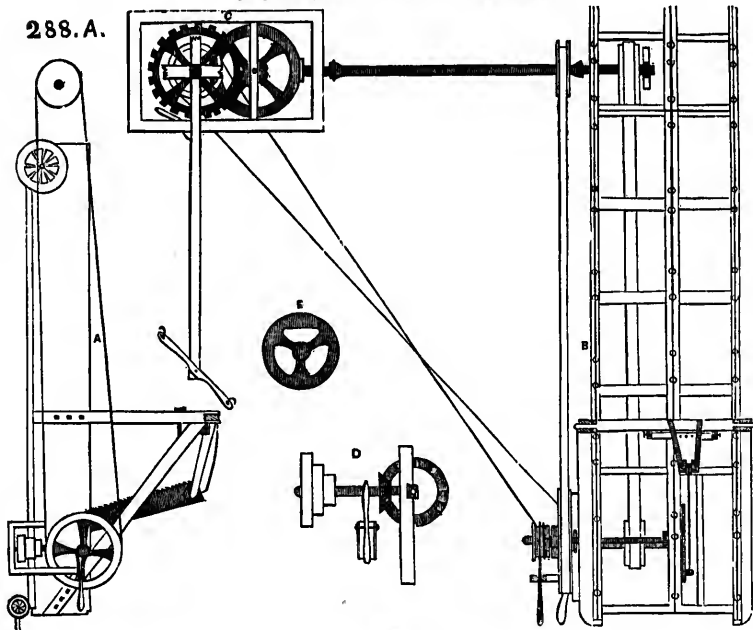
Armstrong's Cooking Stove.





Trehearne's Portable Saw Mill.

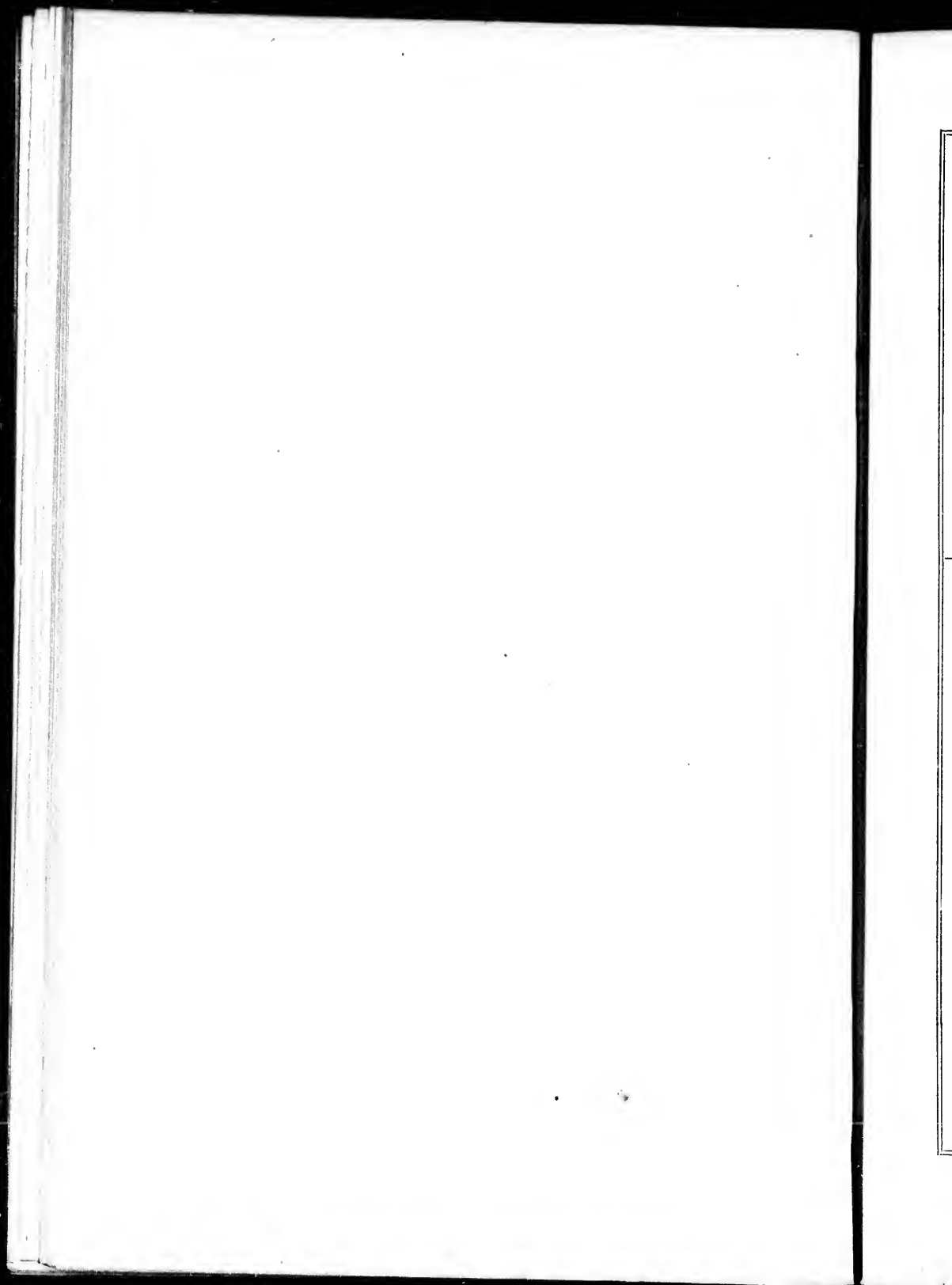
288.A.



288B

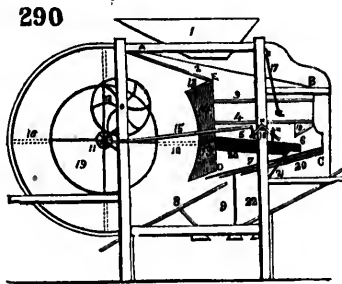
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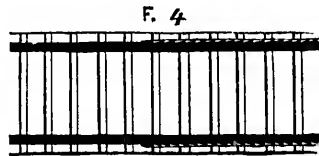
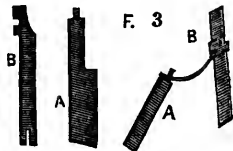
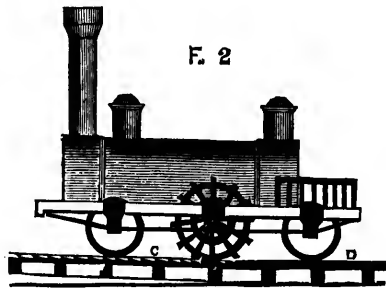
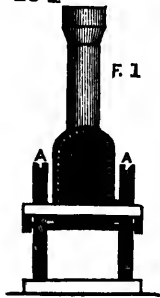
Houck's Fanning Mill.

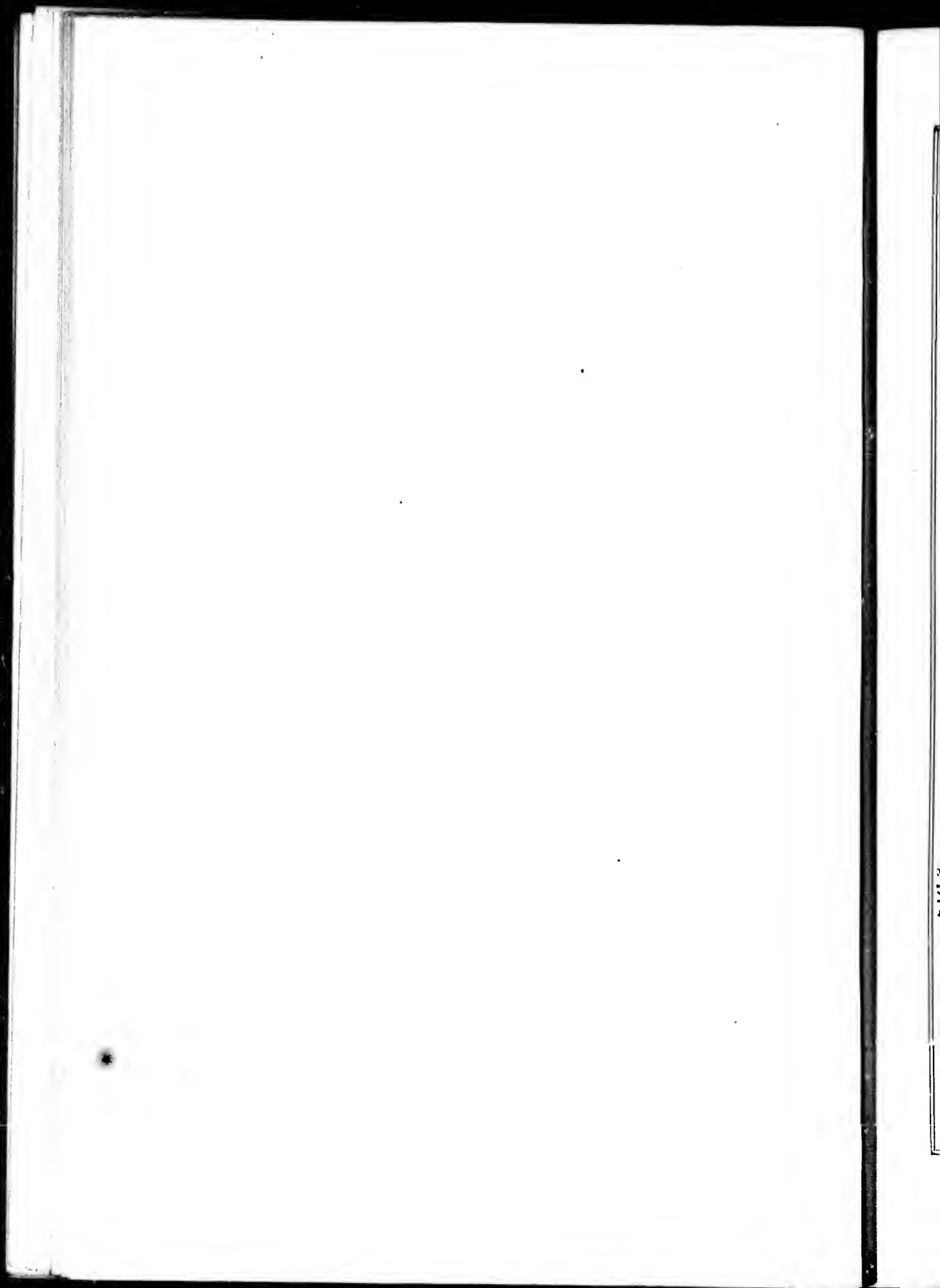
290



Trout's principle of Propelling Locomotives.

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Tripp's Stove.

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FIG. 1.

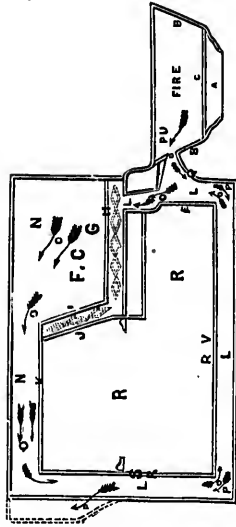


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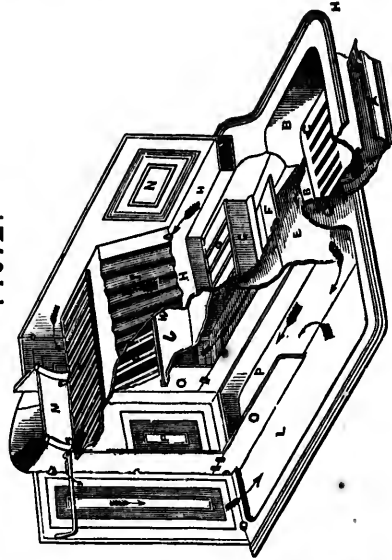


FIG. 3.

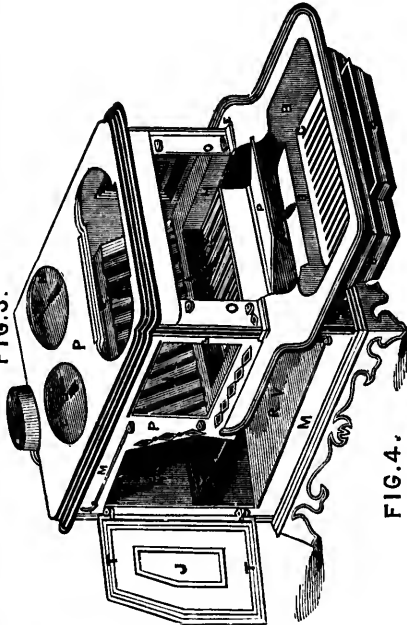
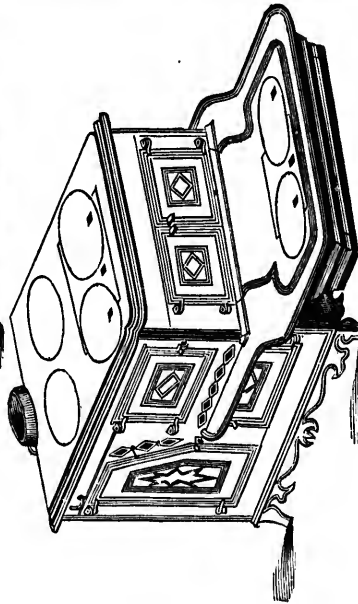
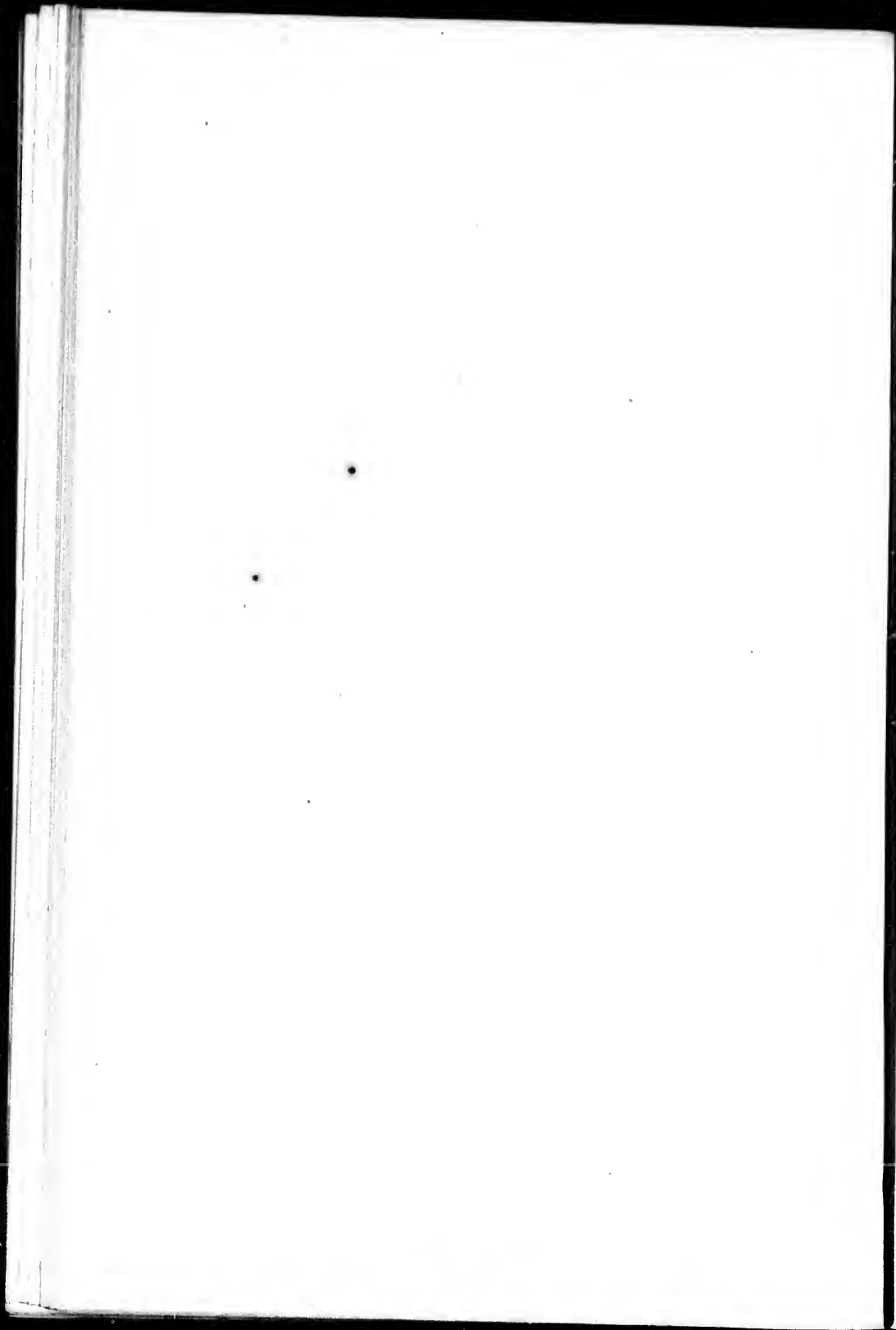


FIG. 4.





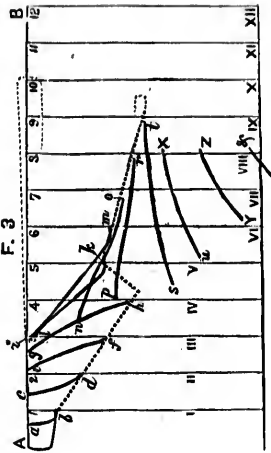
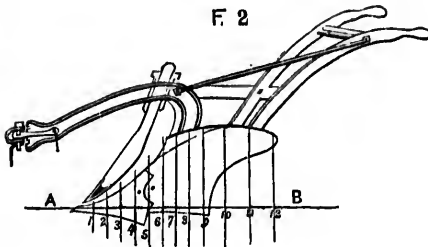
Hulbert's Plough.

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F. 1



F. 2



Tiffany's Air Warmer and House Ventilator.

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FIG. 1.

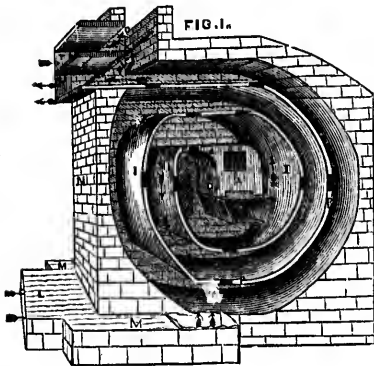
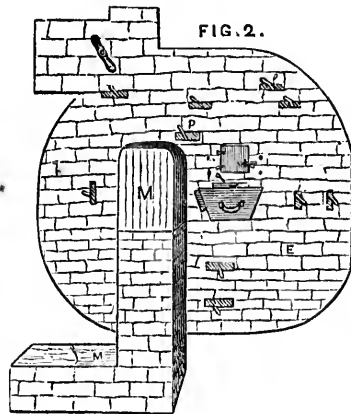
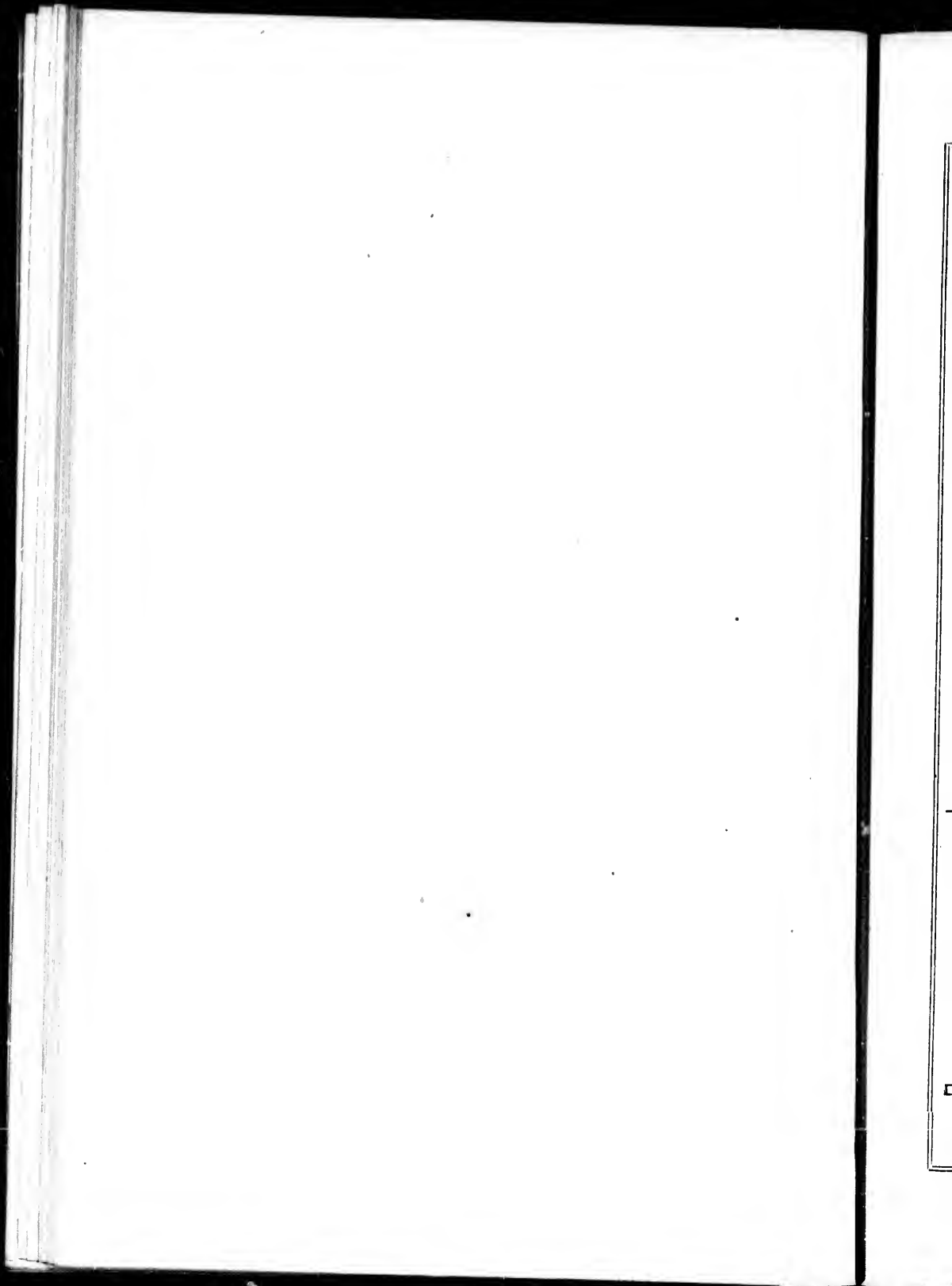
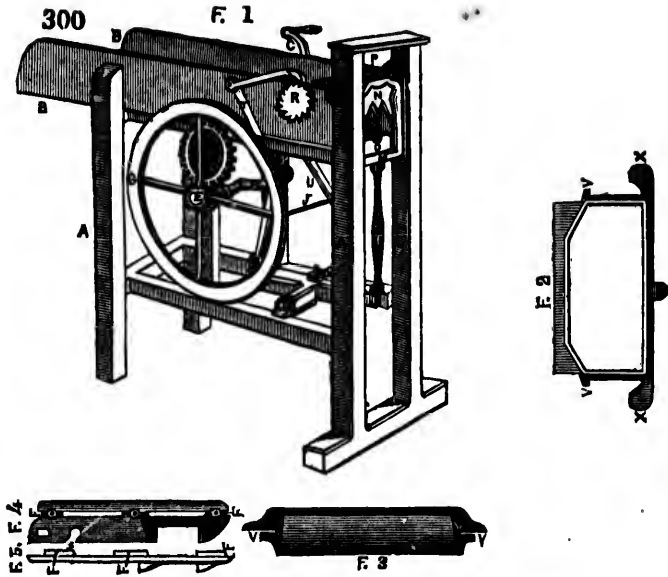


FIG. 2.

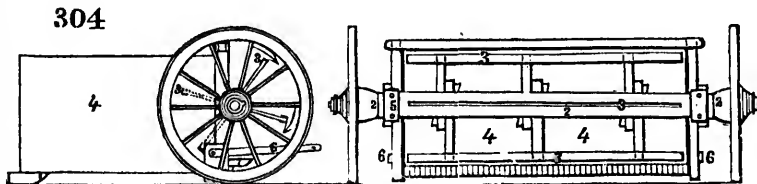


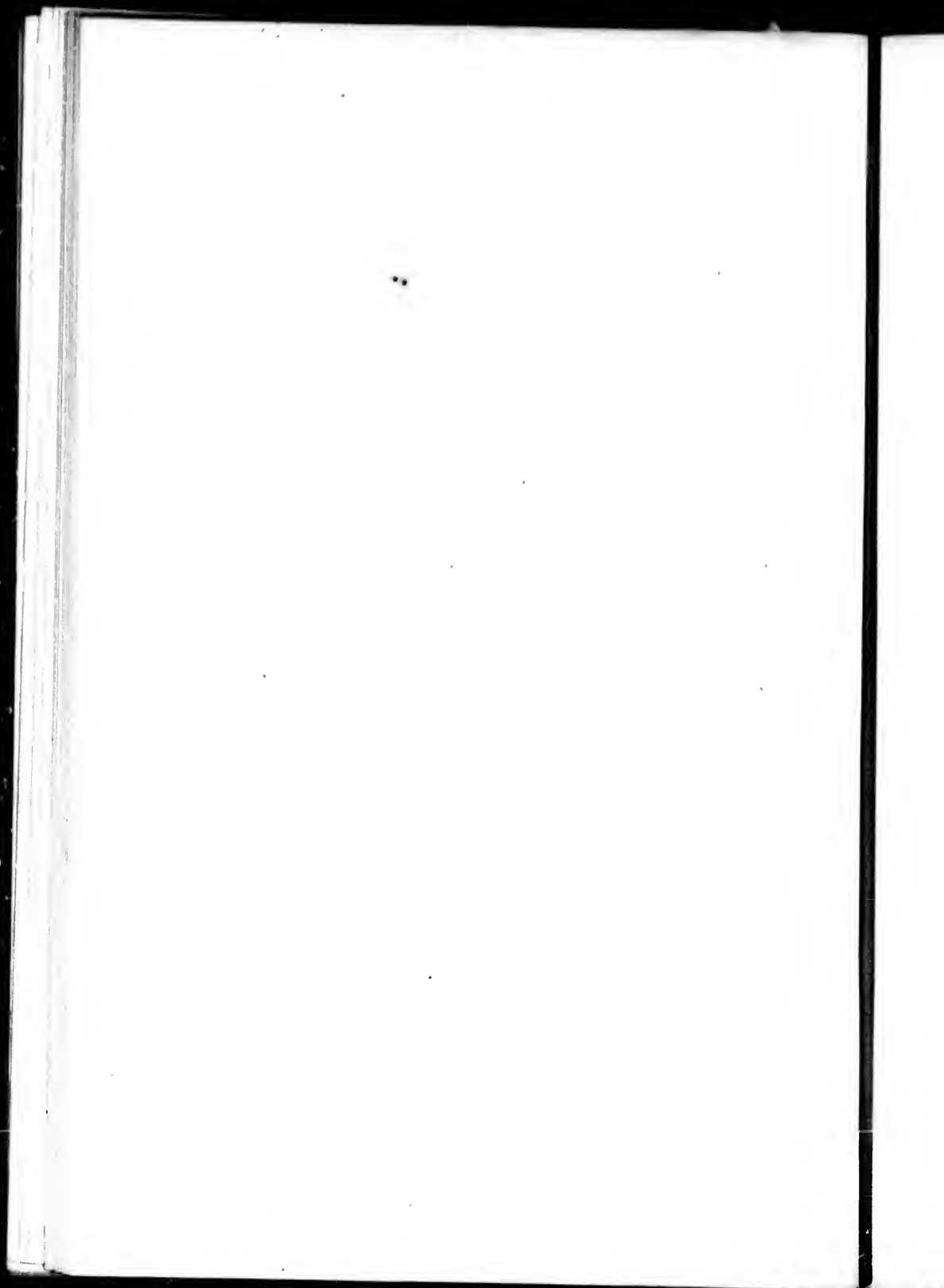


Smith's Straw Cutter.

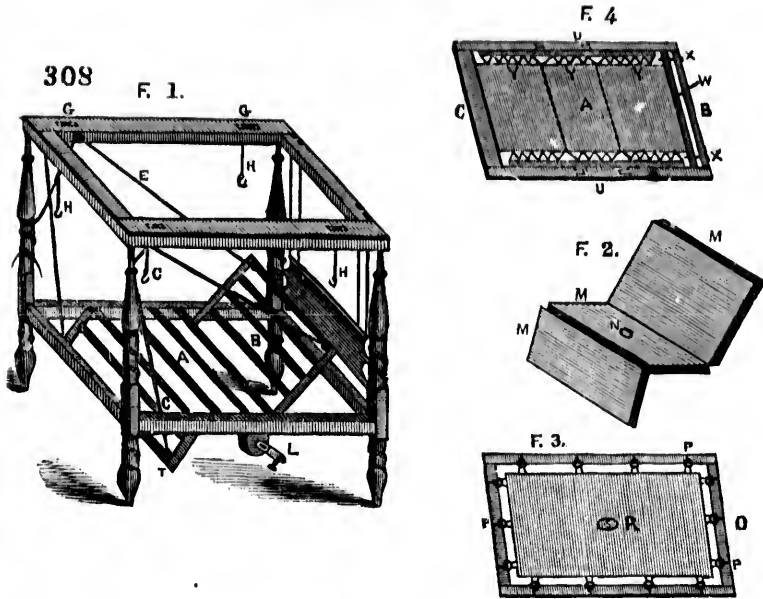


Griffin's Clover Seed Gatherer.

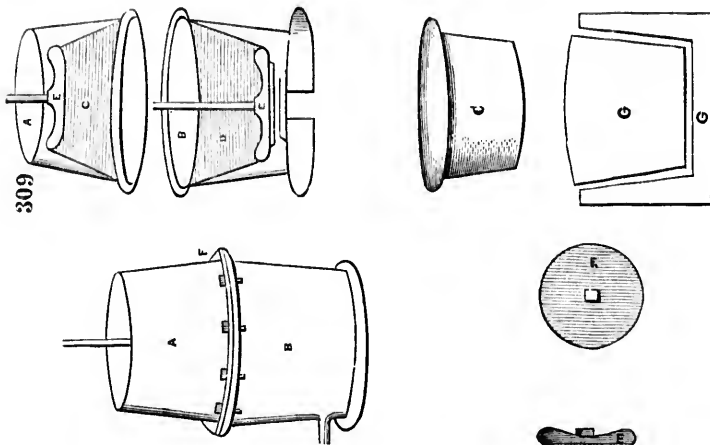


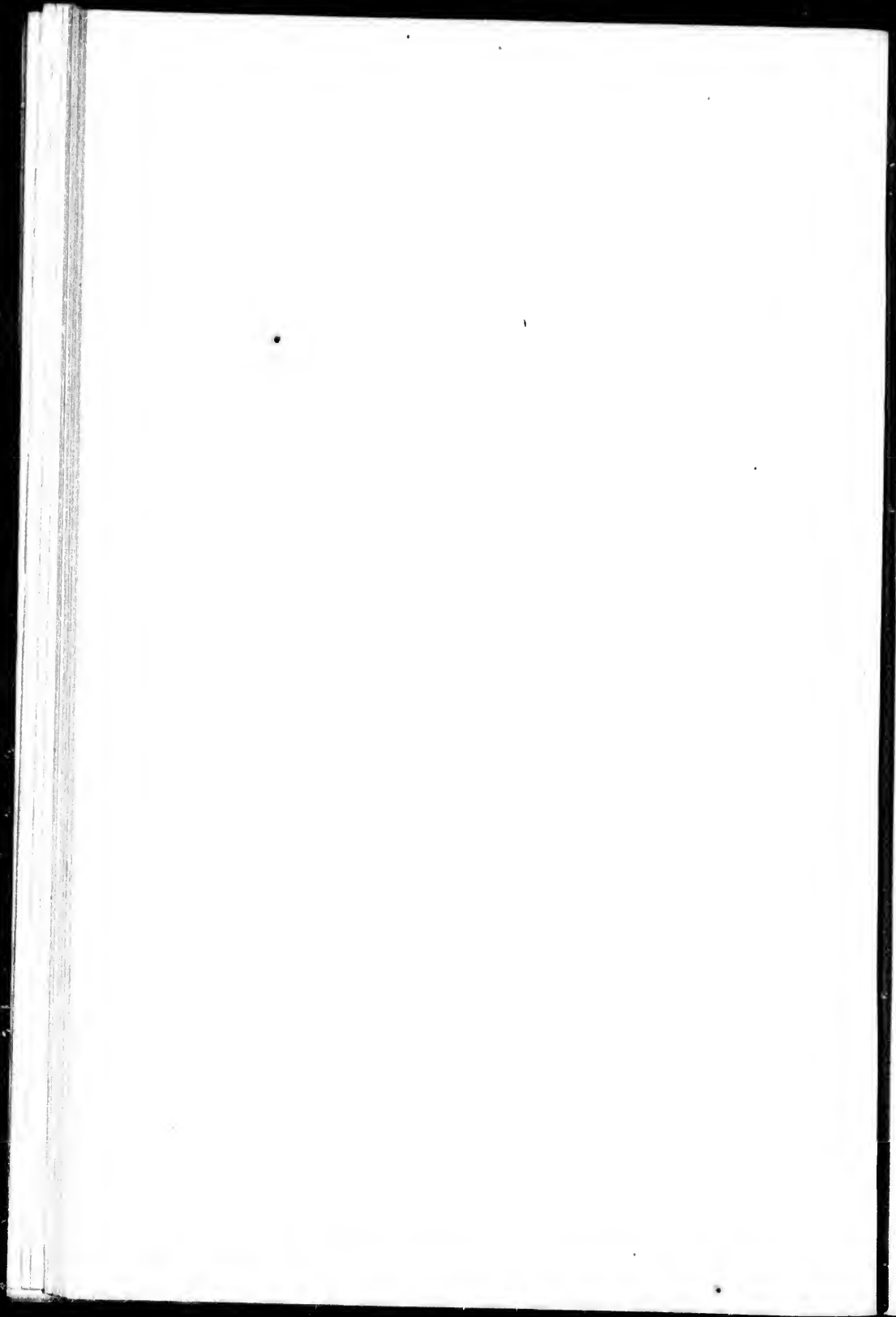


Watson's Bedstead.



Hearle's Engine Pump and Fire Engine.





Rattan's Ventilator.

311 FIG. 1.

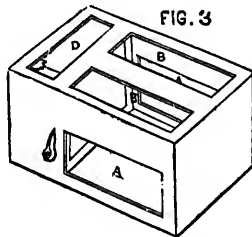
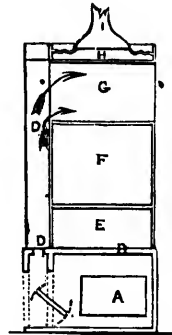
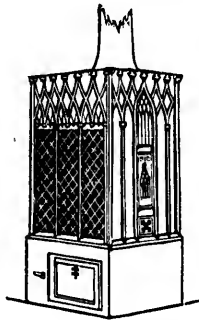
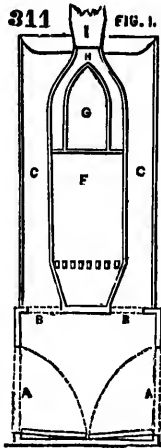


FIG. 3.

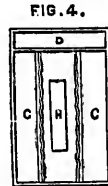


FIG. 4.

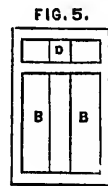
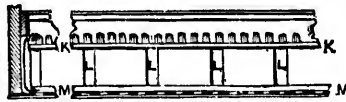
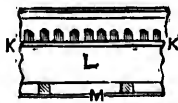
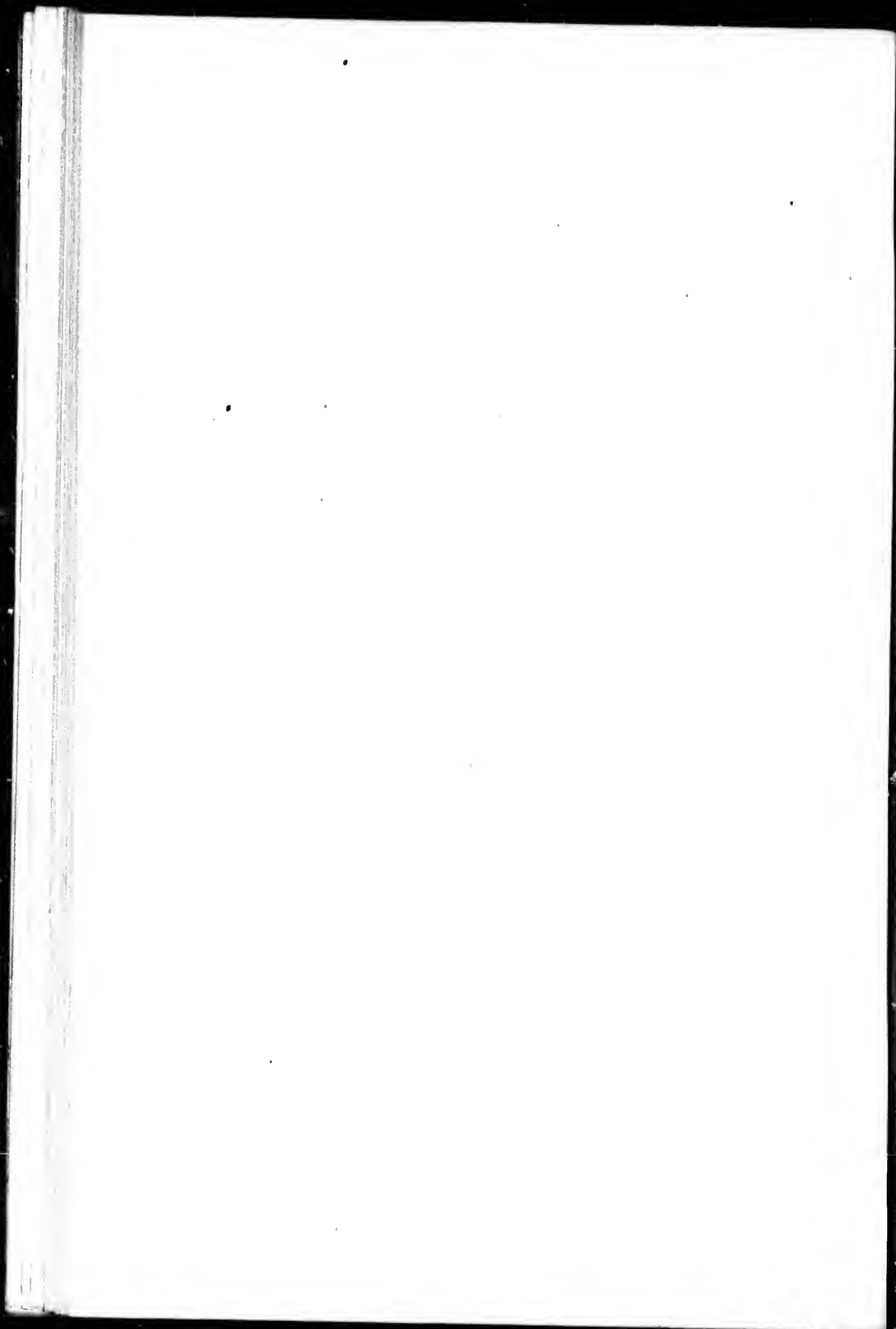


FIG. 5.





Griffin's Cooking Stove.

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FIG. 1.

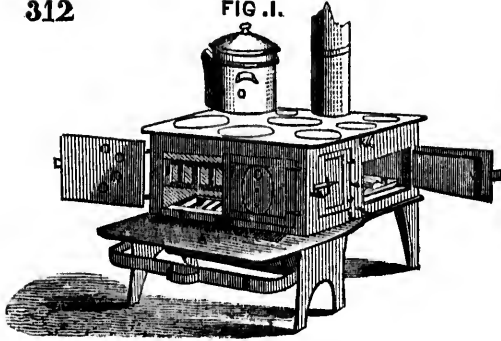
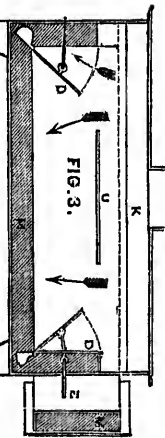
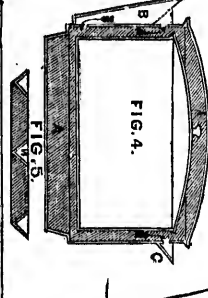
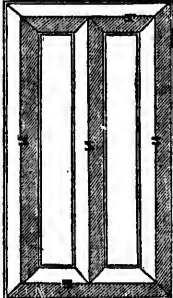
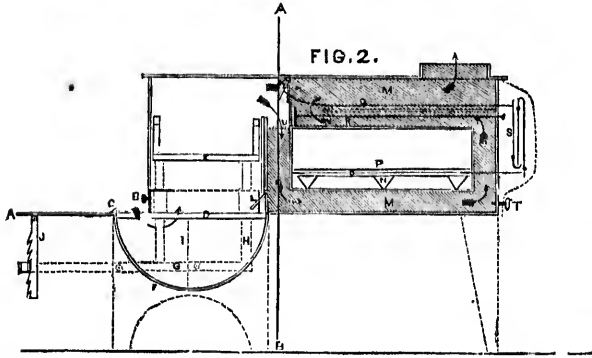
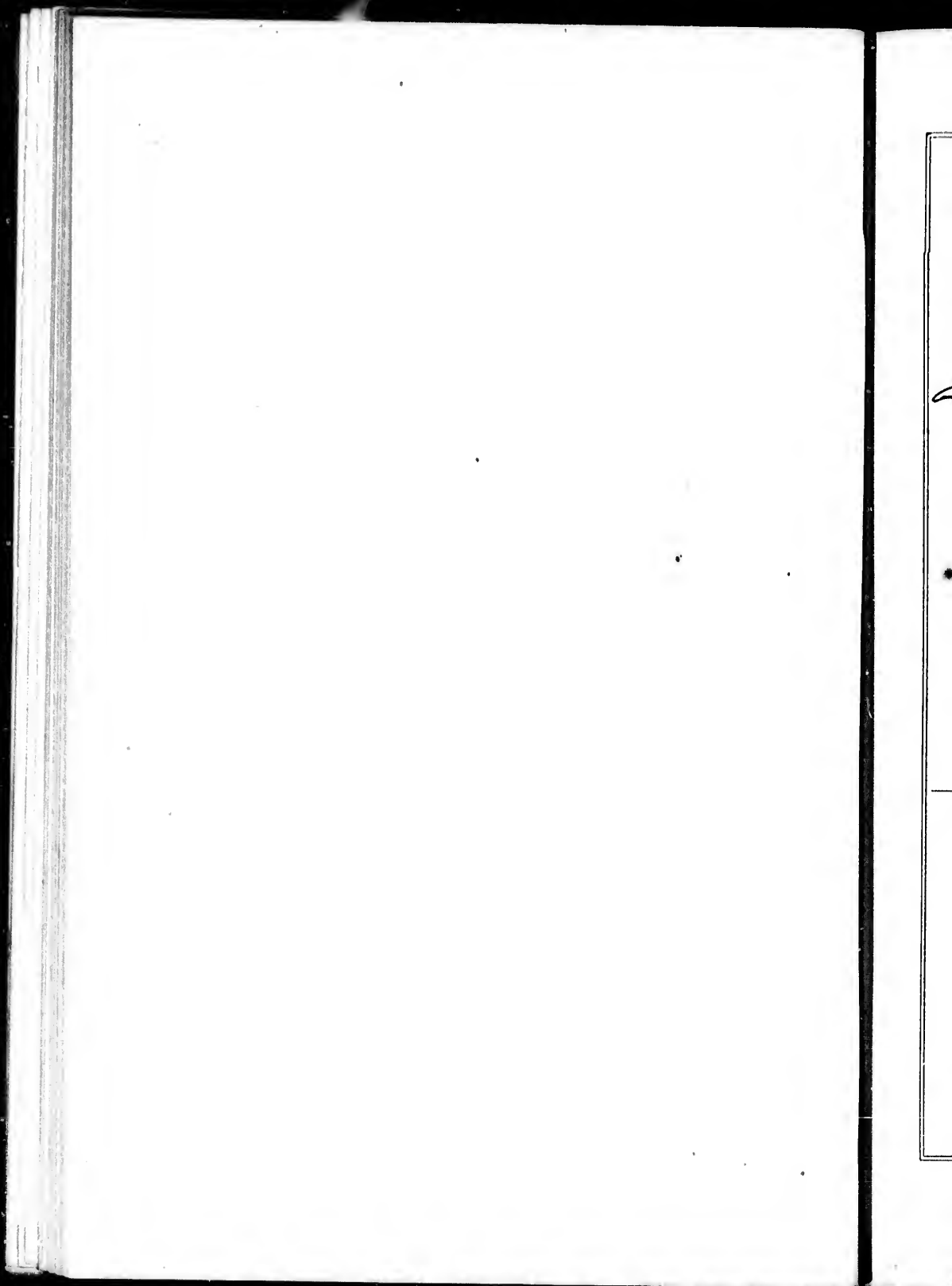


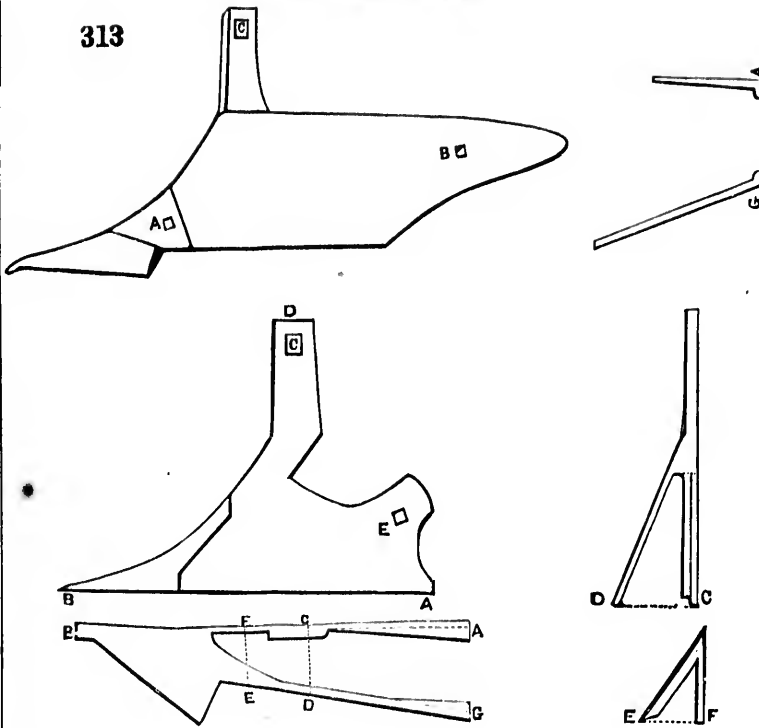
FIG. 2.



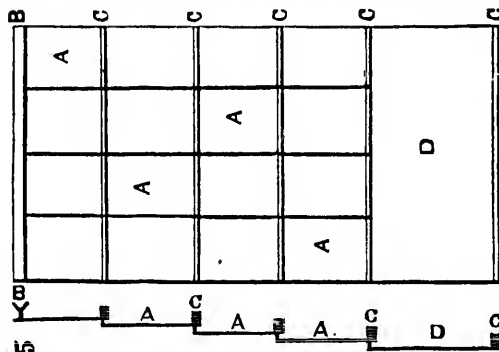


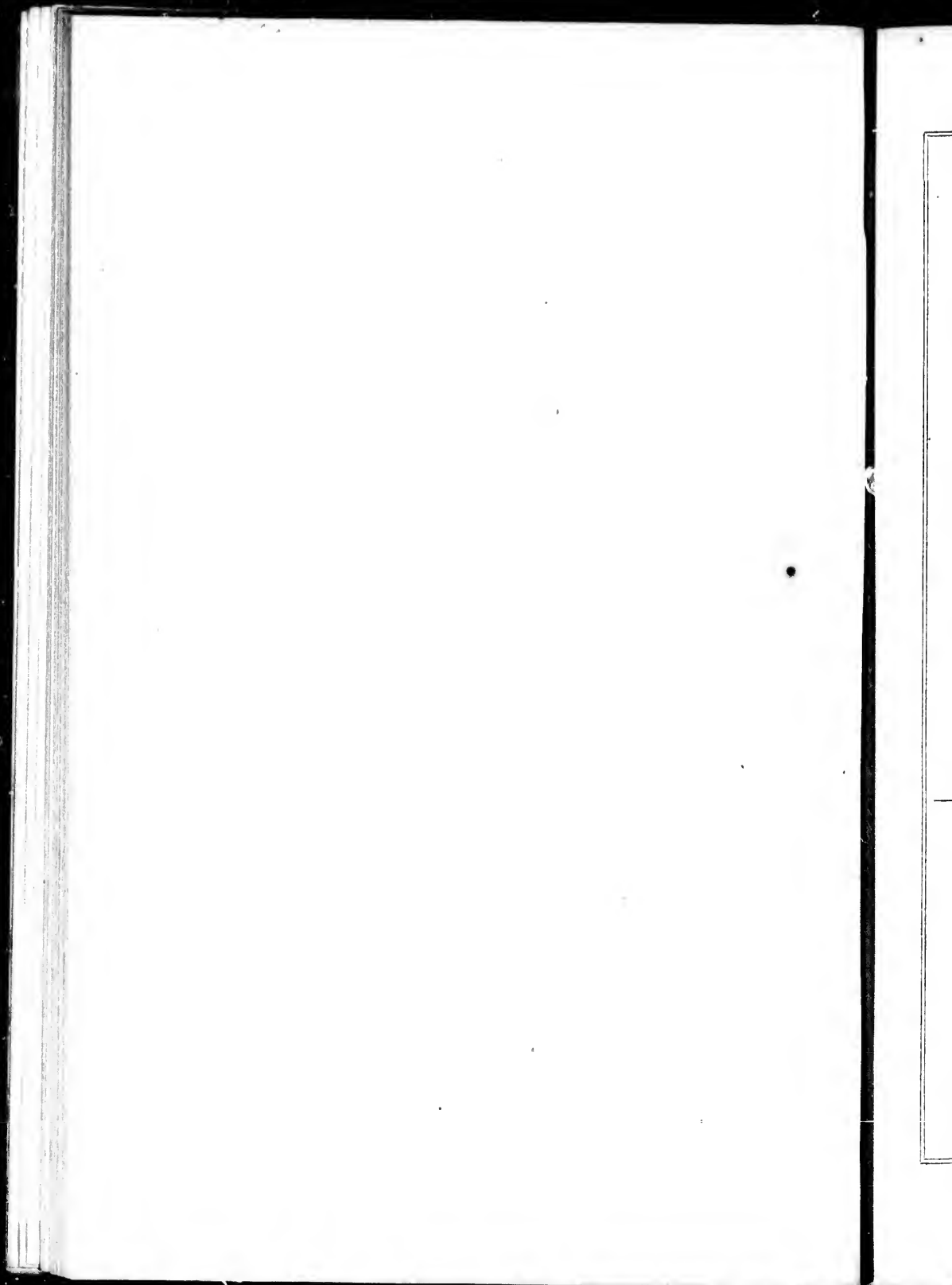
Holton's Plough.

313



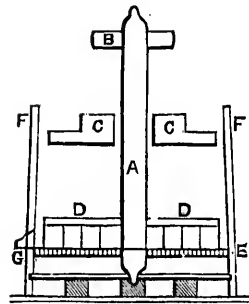
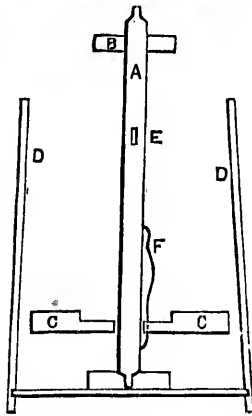
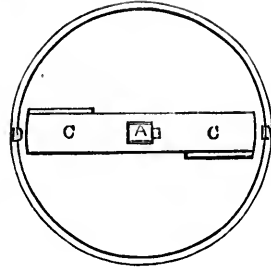
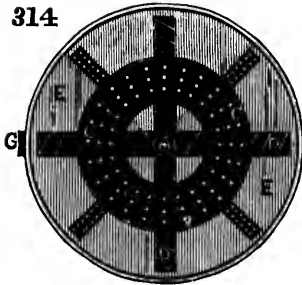
Cull's Improvement in Making Starch.





Cull's Rouser and Bran Washer.

314



Kieley's Bridge.

316

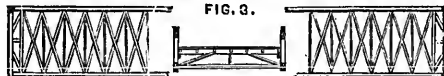
FIG. 1.



FIG 2

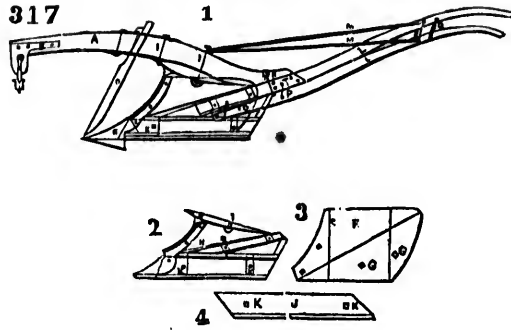


FIG. 3.



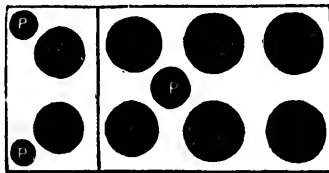
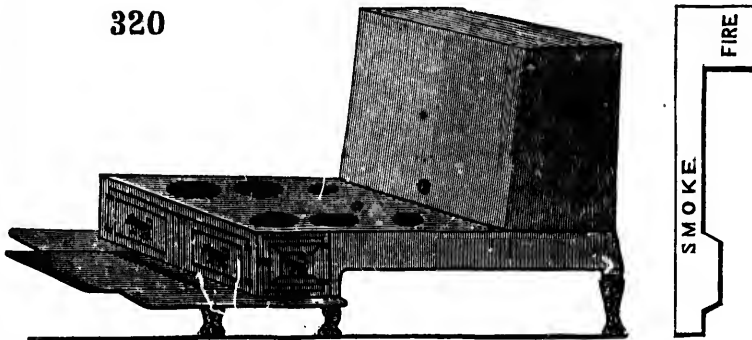


Thompson's Plough.

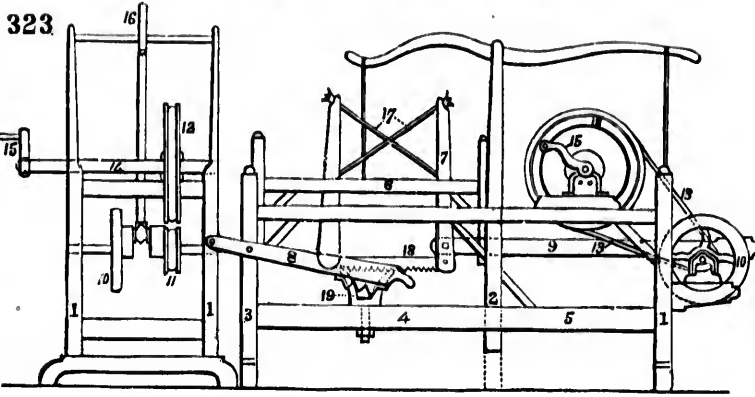


Armstrong's Giant Cooking Stove.

320



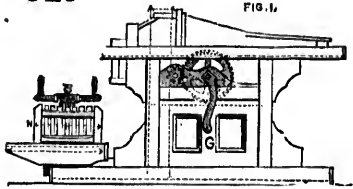
Shattuck's Cross-cutting Machine.



McKenzie's Cider Mill and Press.

325

FIG. 1.



F. 2.

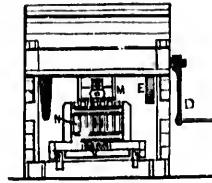
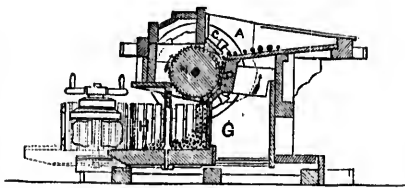
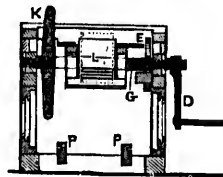


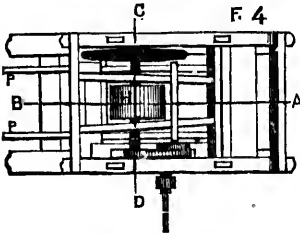
FIG. 3



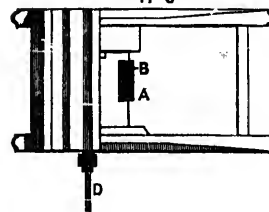
F. 5



F. 4



F. 6

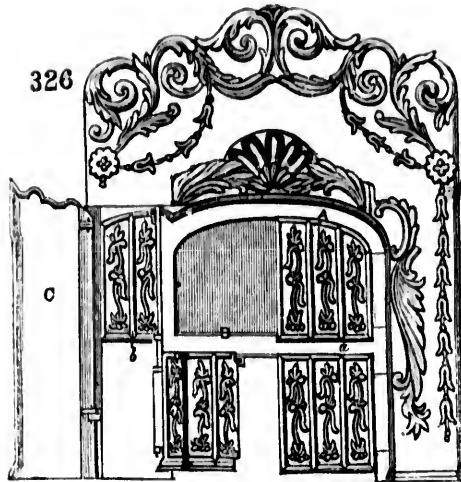


7

2



Jewett's Store.



Jenney's Machine for Cutting Staves.

327 F. 1

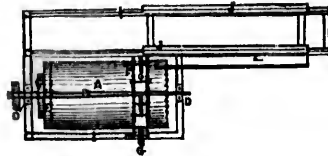
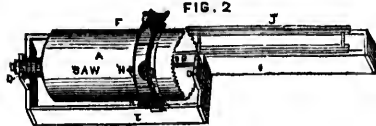
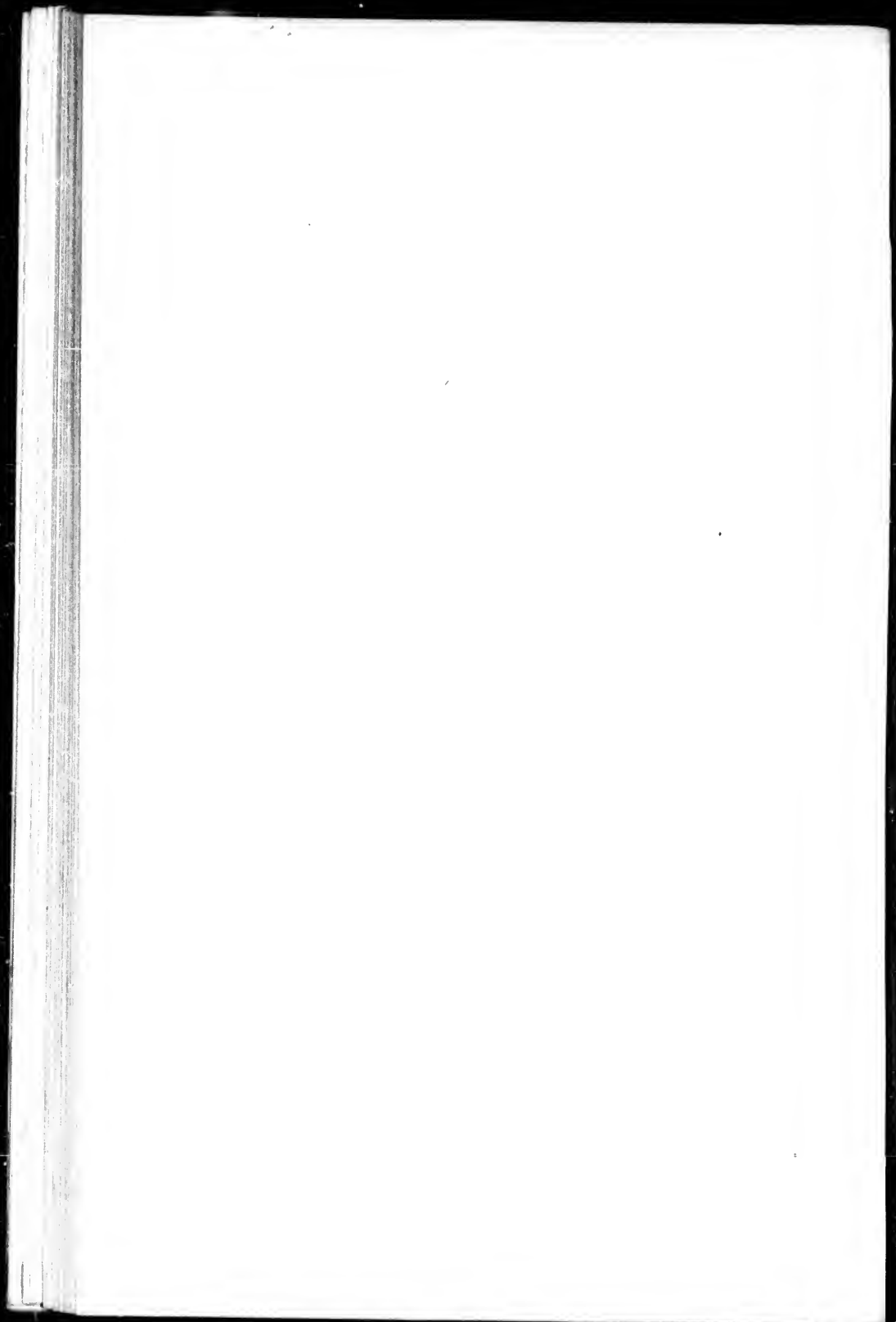


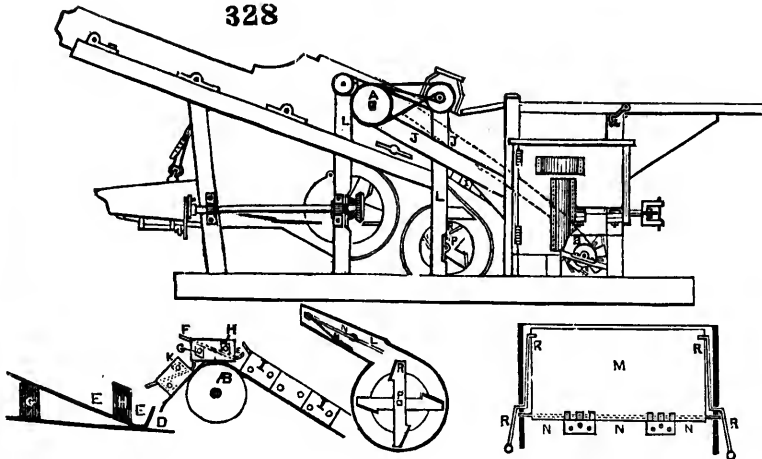
FIG. 2





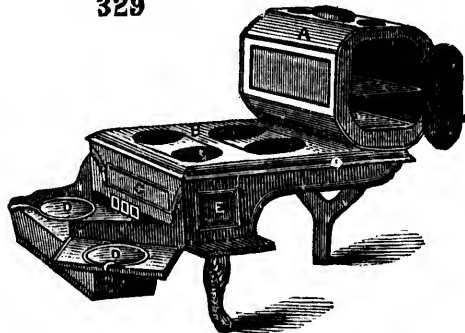
Merrill's Machine for Cleaning Grain.

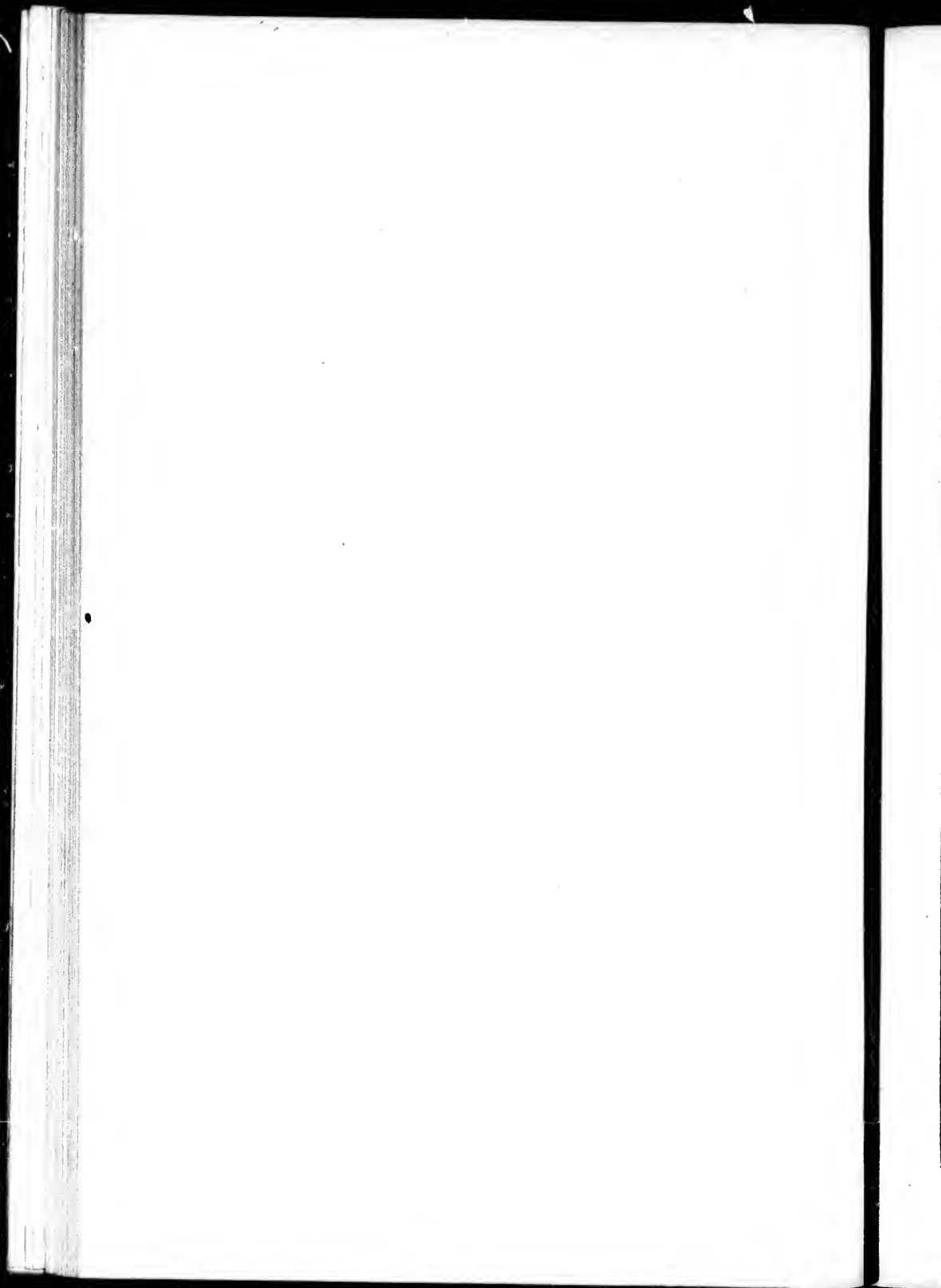
328



Fuller's Salamander Cooking Stove.

329

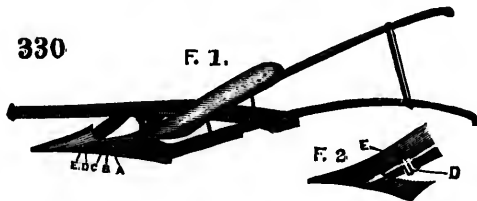




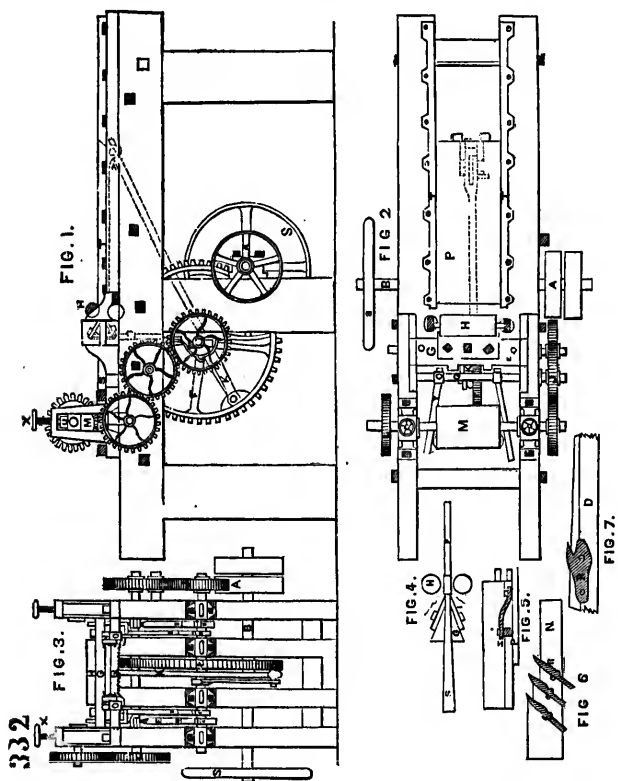
Lemon's Plough.

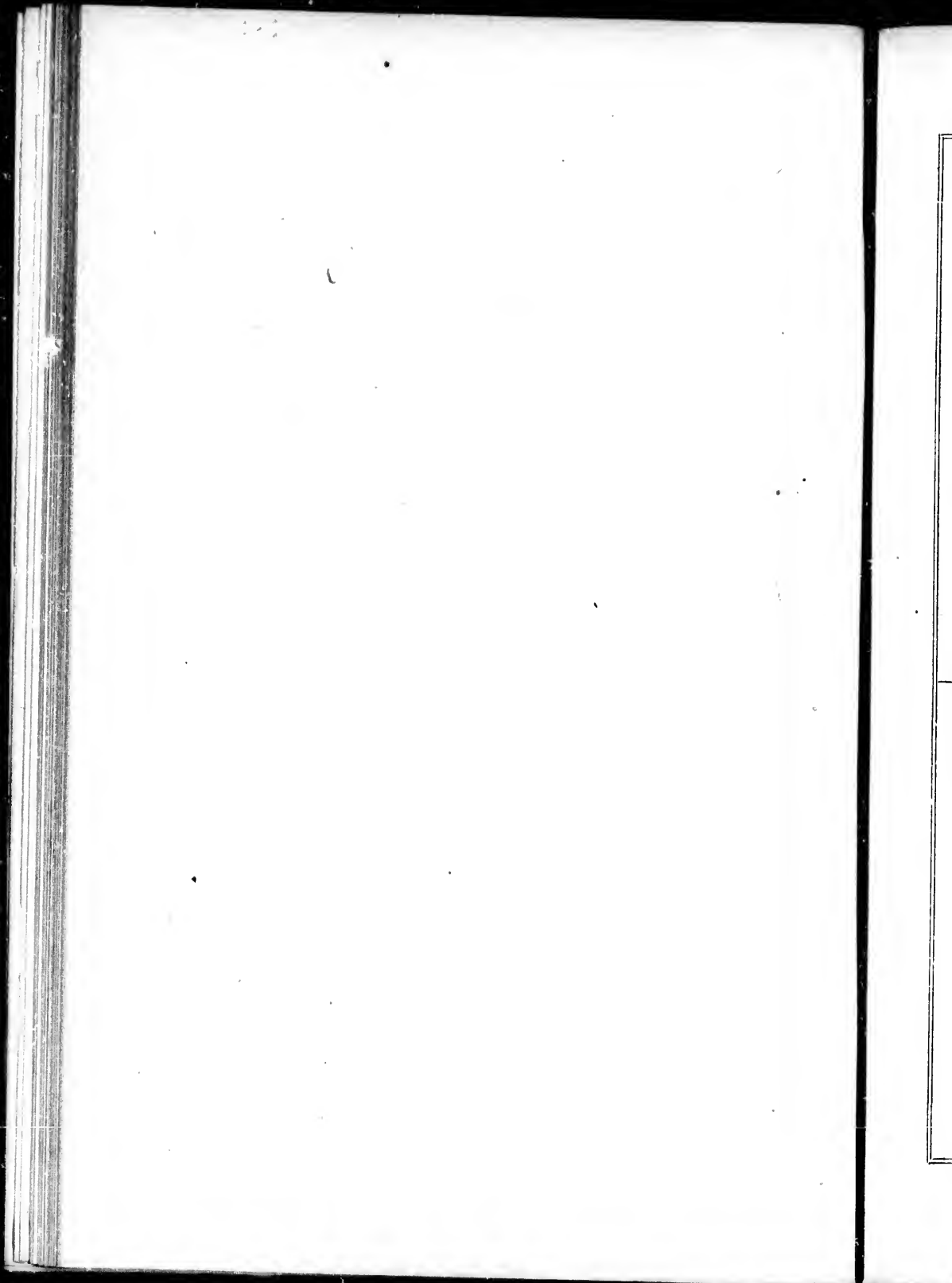
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F. 1.

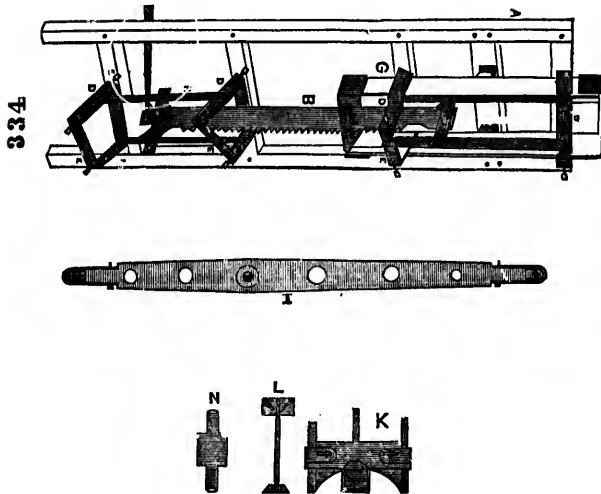


Hawley's Shingle Making Machine.

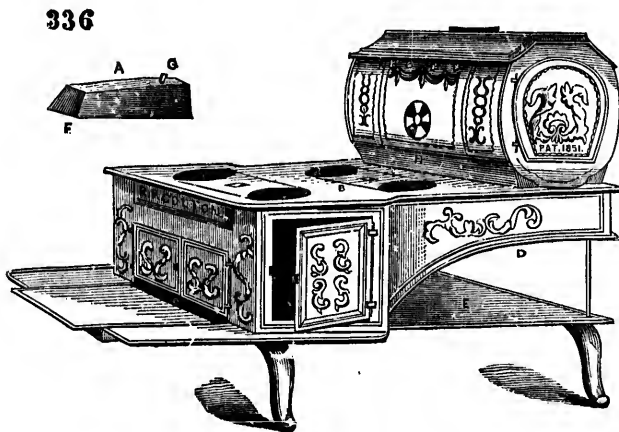


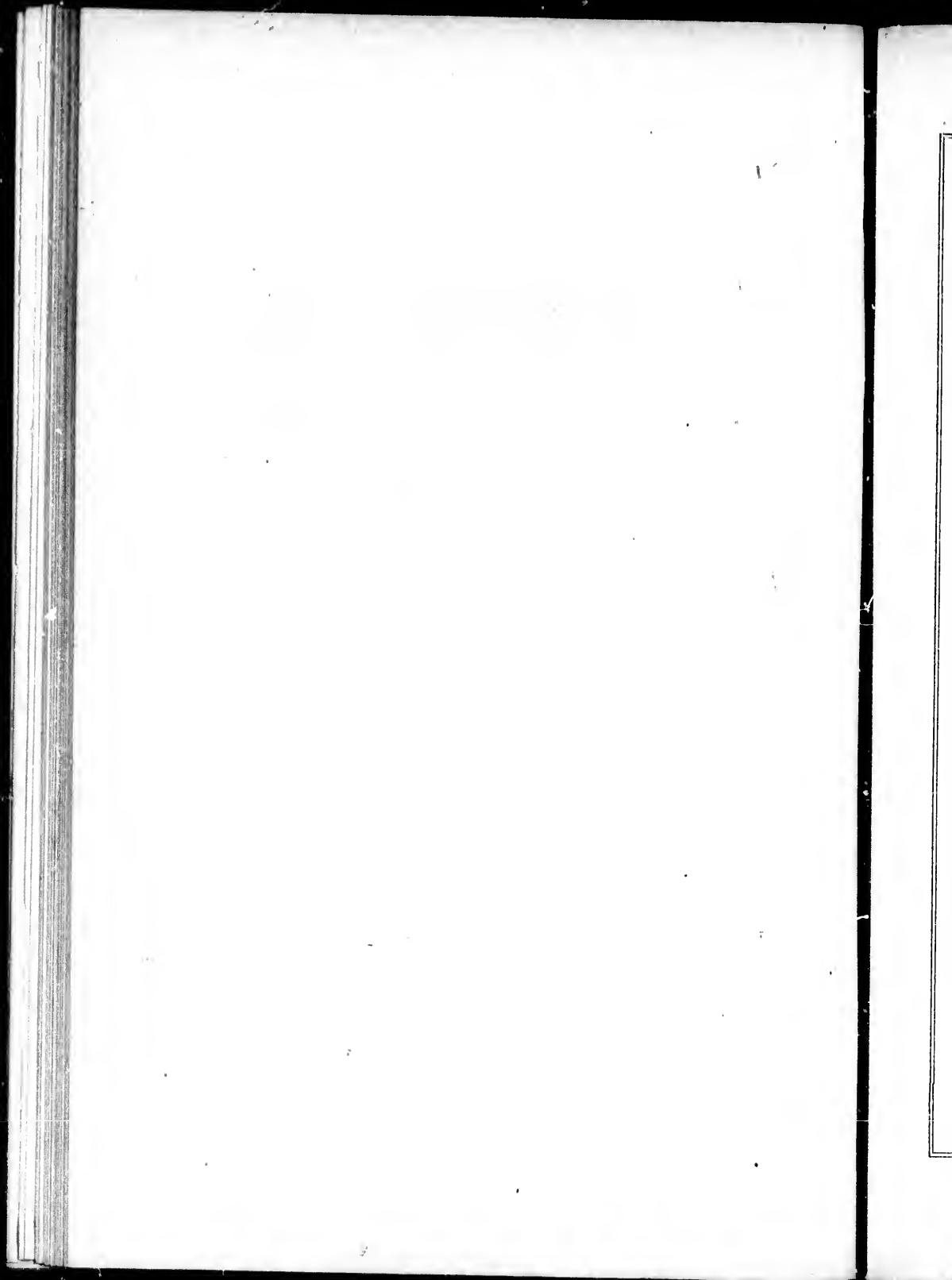


Trehearne's Perpendicular Saw.



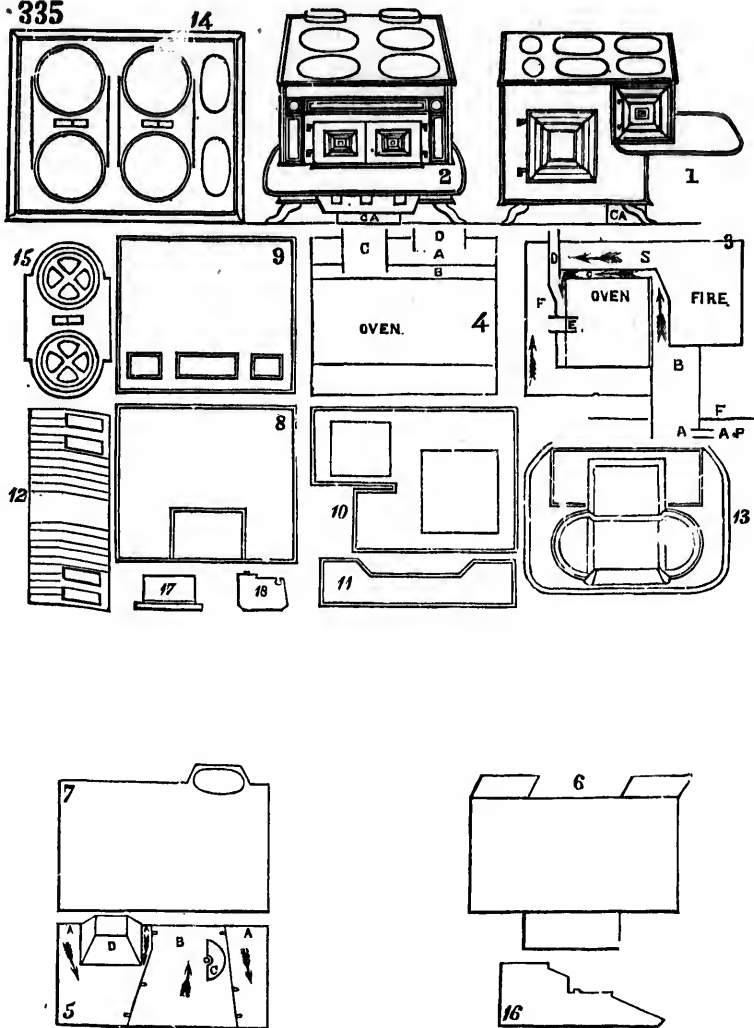
Colton's Cooking Stove.

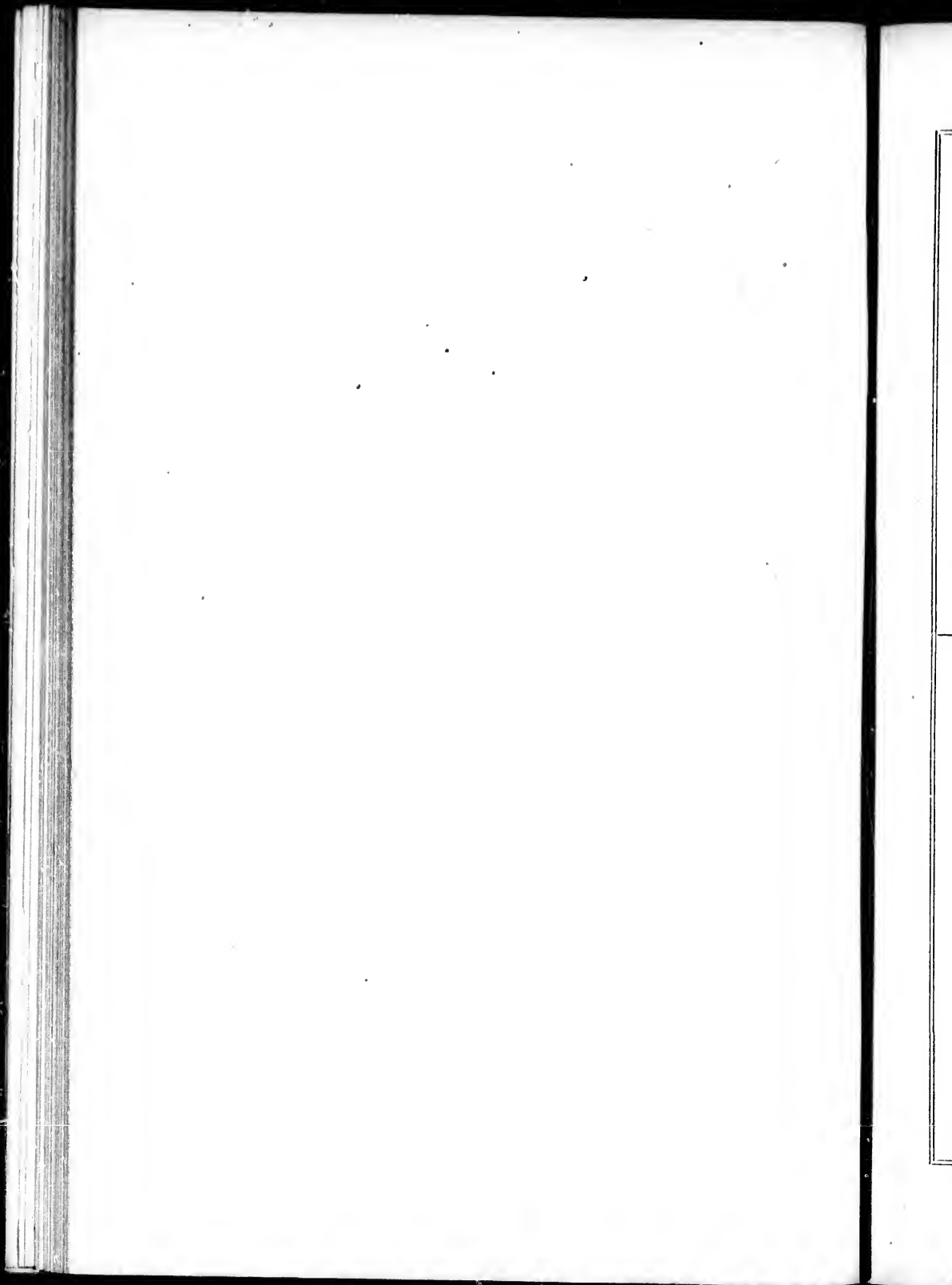




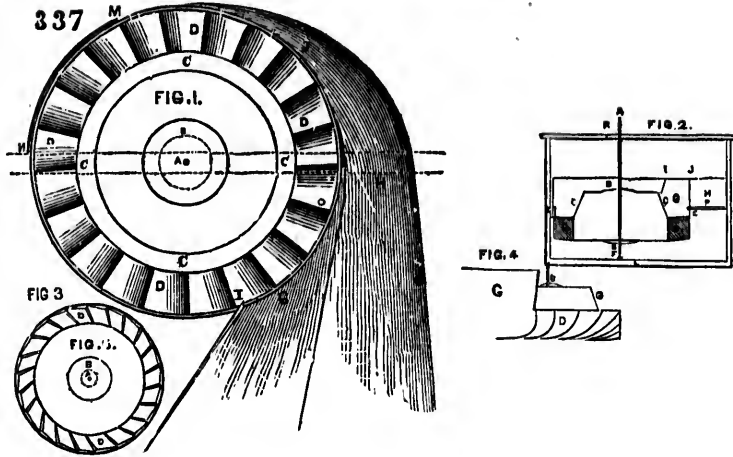
Carter's Cooking Stove.

335

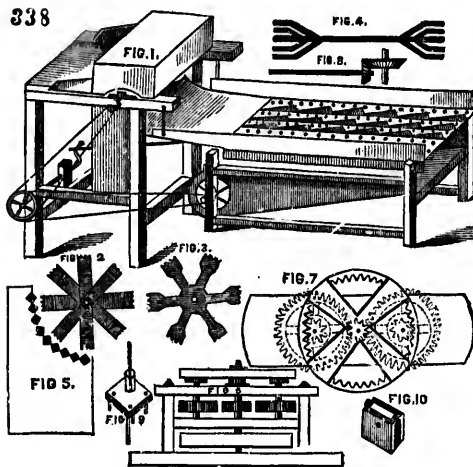


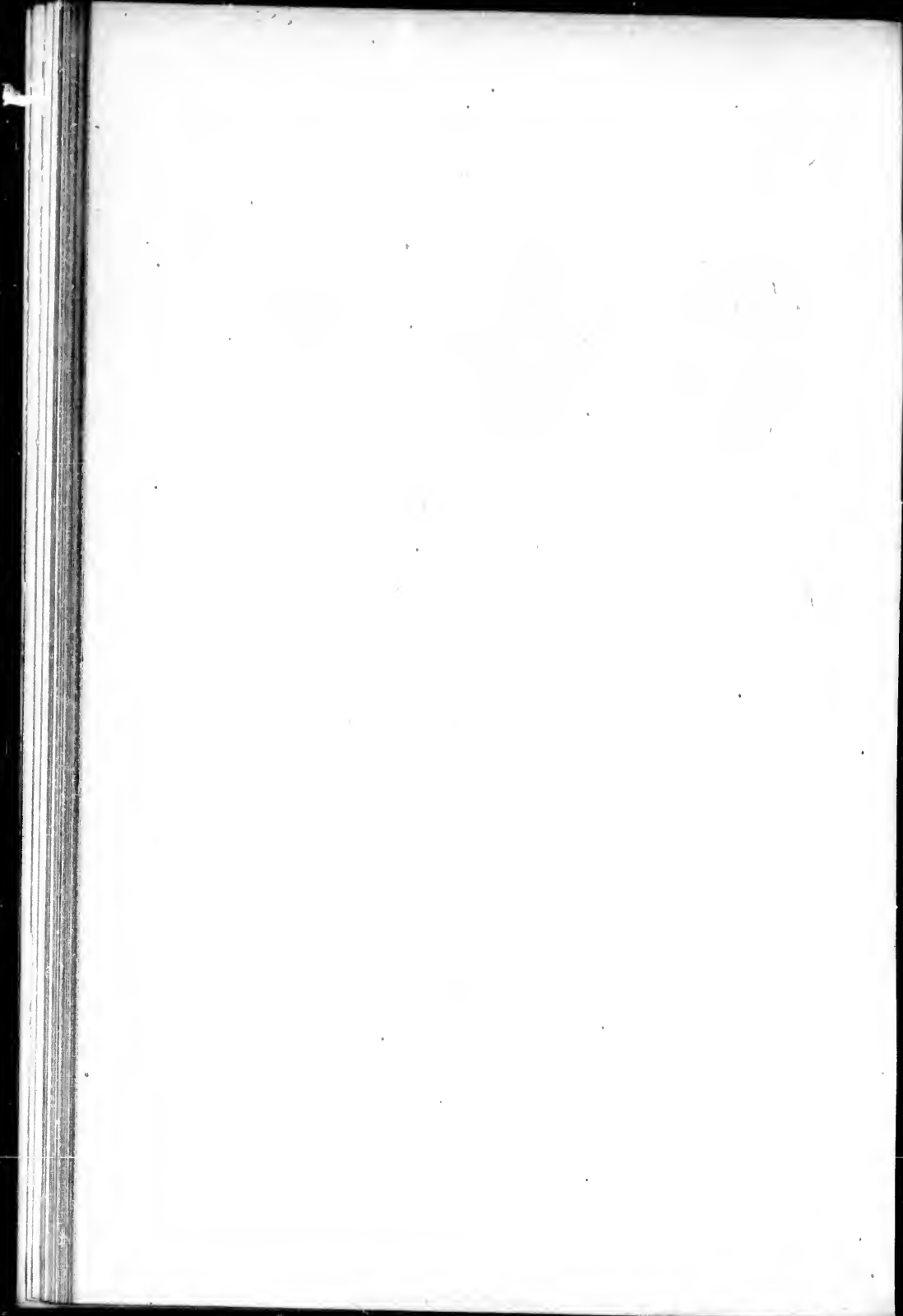


Smith's Whirlpool Wheel.



Fuller's Excelsior Cylindrical Thresher.





Coleman's Moulding, Rabetting and Architrave Machine.

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FIG. 3.

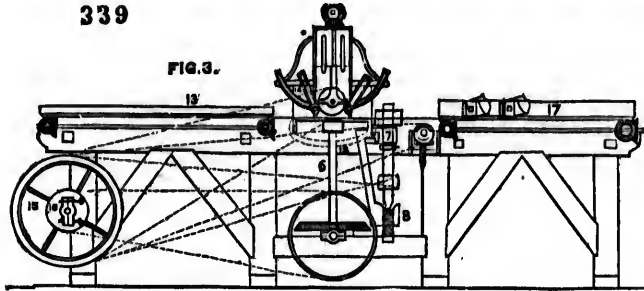


FIG. 1.

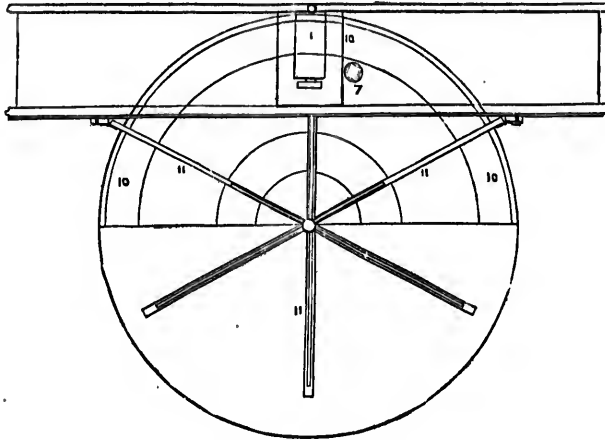
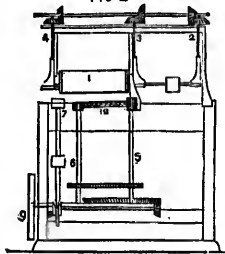
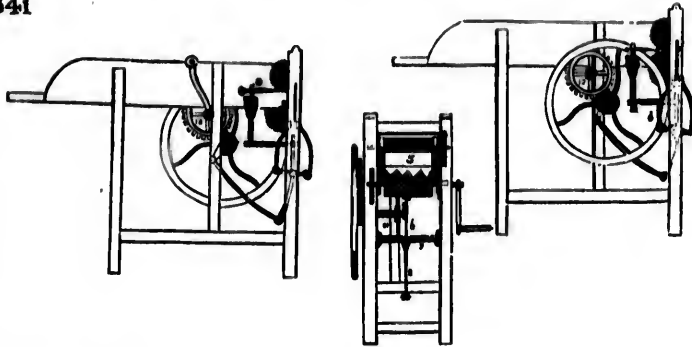


FIG 2



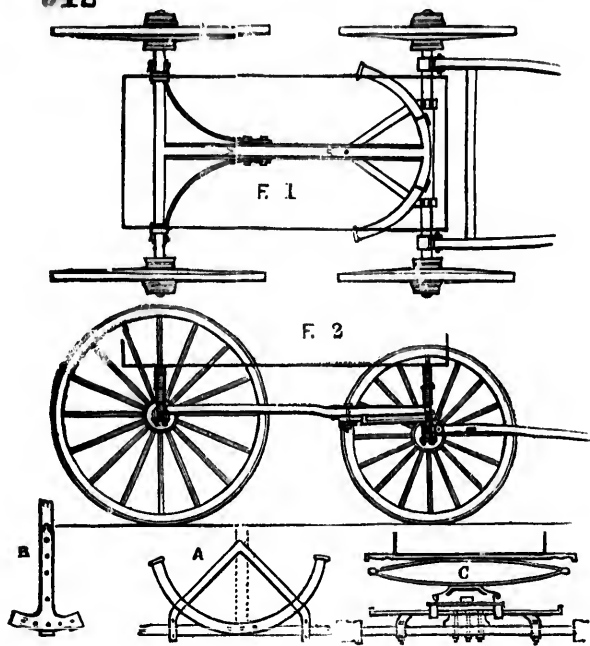
Higley's Improved Hay and Straw Cutter.

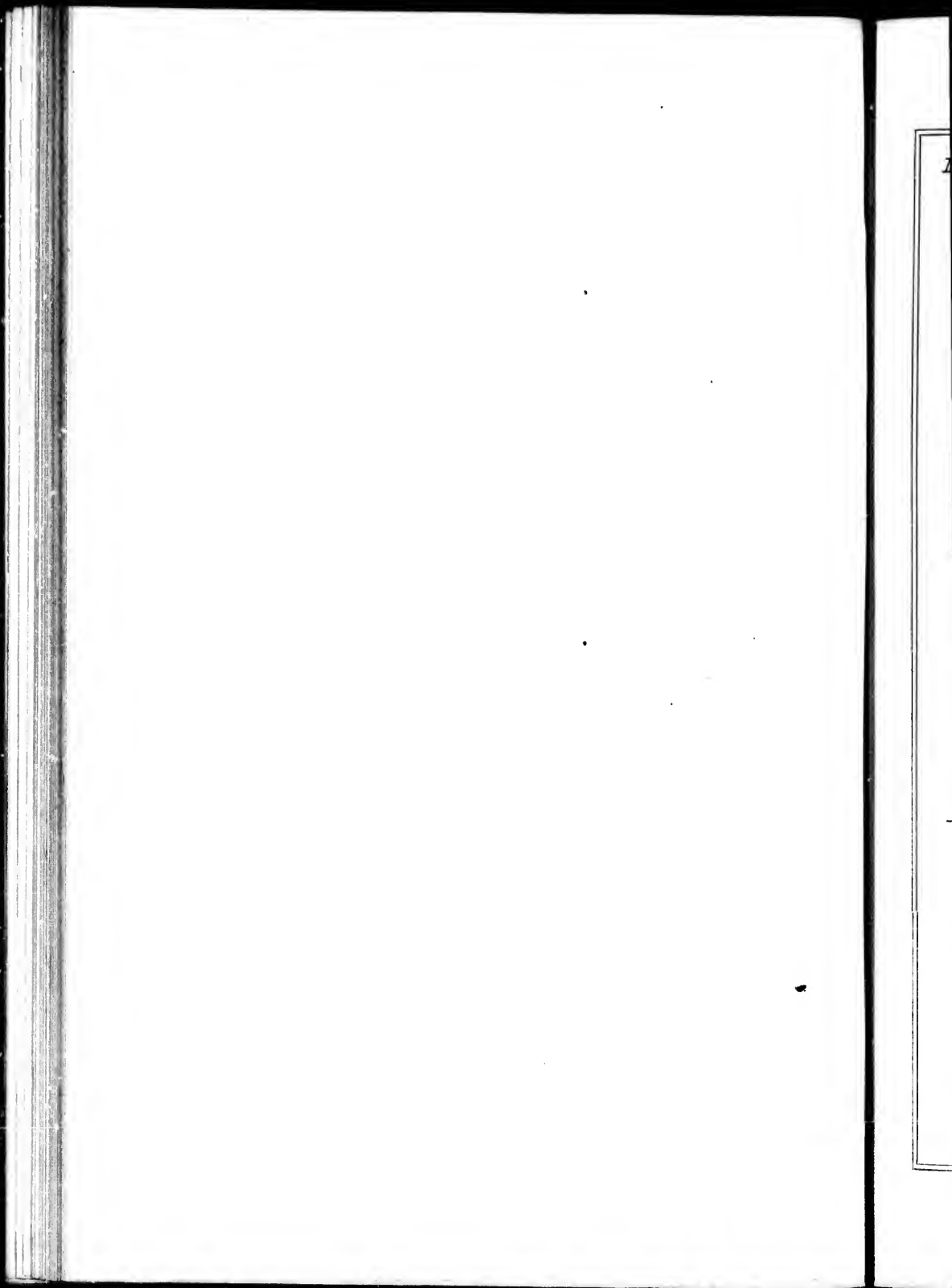
341



Mills' new method of Constructing Carriages and other Vehicles.

342

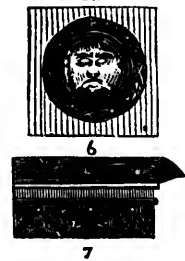




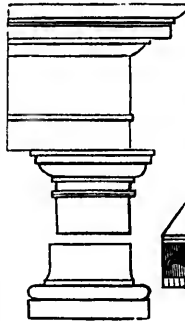
Maclaren's Improved mode of making Bricks and Architectural Ornaments.

343

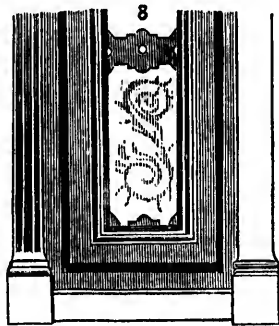
FIG. 5



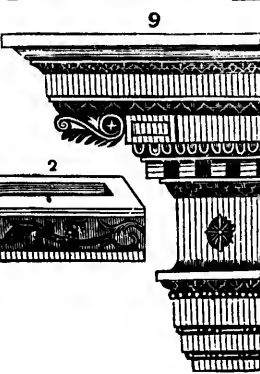
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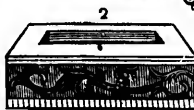
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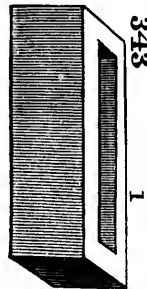
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9



2



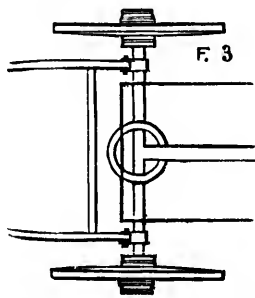
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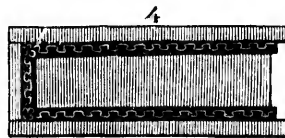


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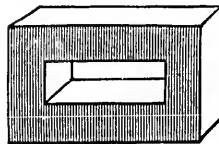
342—Continued.



F. 3



4



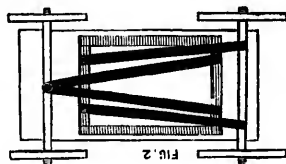
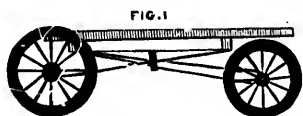
10

Jo

A

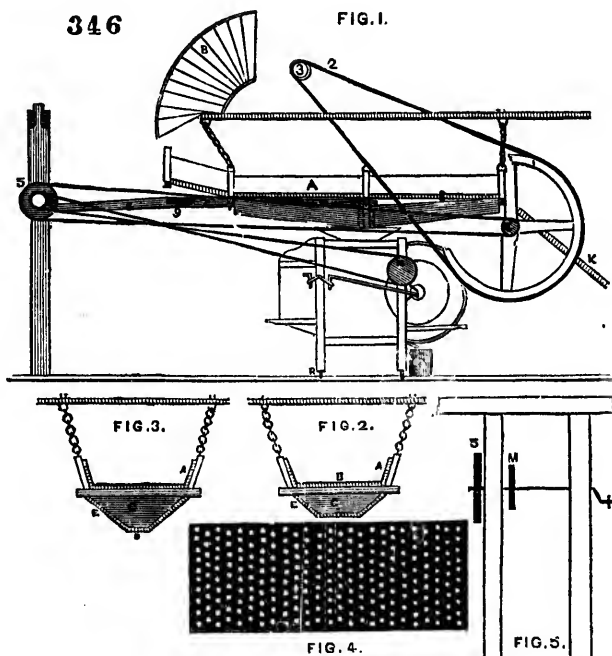
Jones's new and useful improvement in the construction of Waggon.

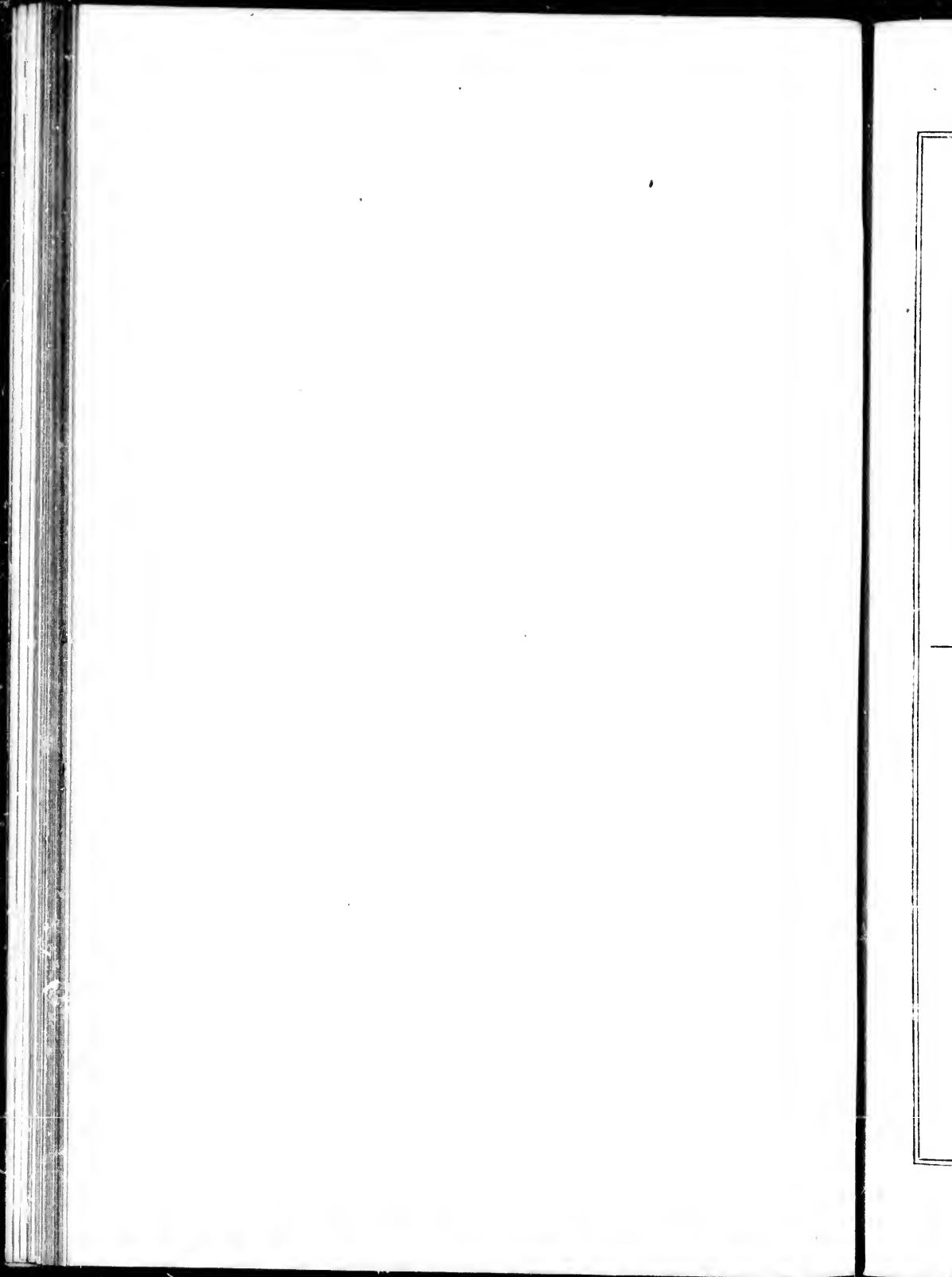
345



Anderson's improvements in a Machine called a Grain Separator.

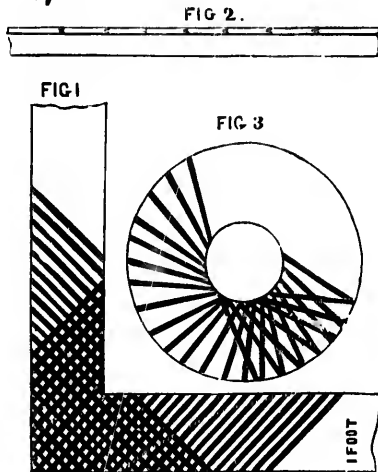
346





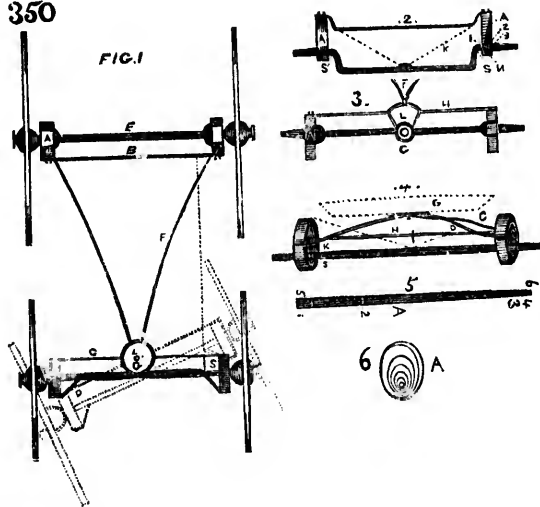
Anderson's new plan for Building Houses.

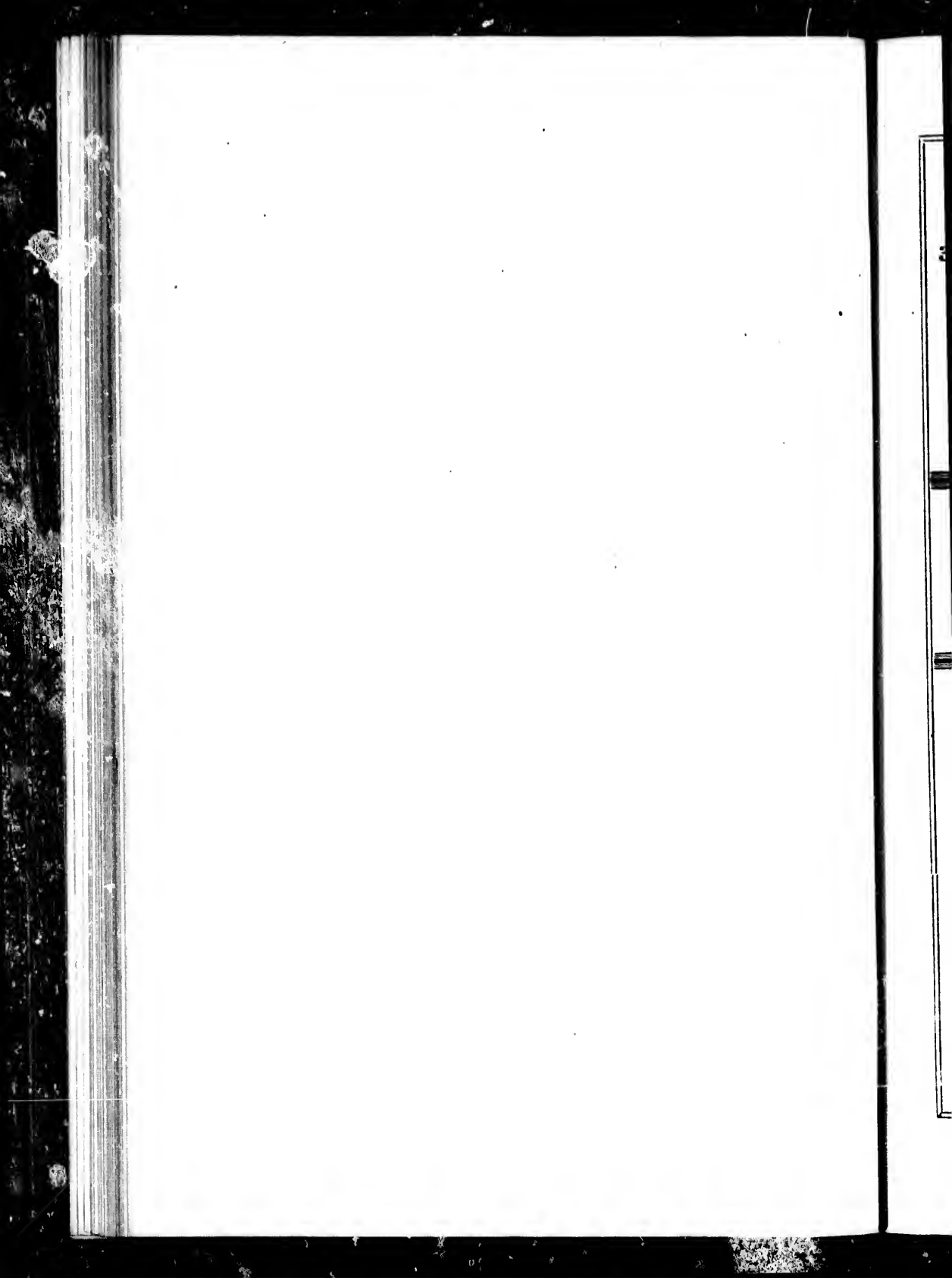
347



Jones' new and improved method of constructing Carriages.

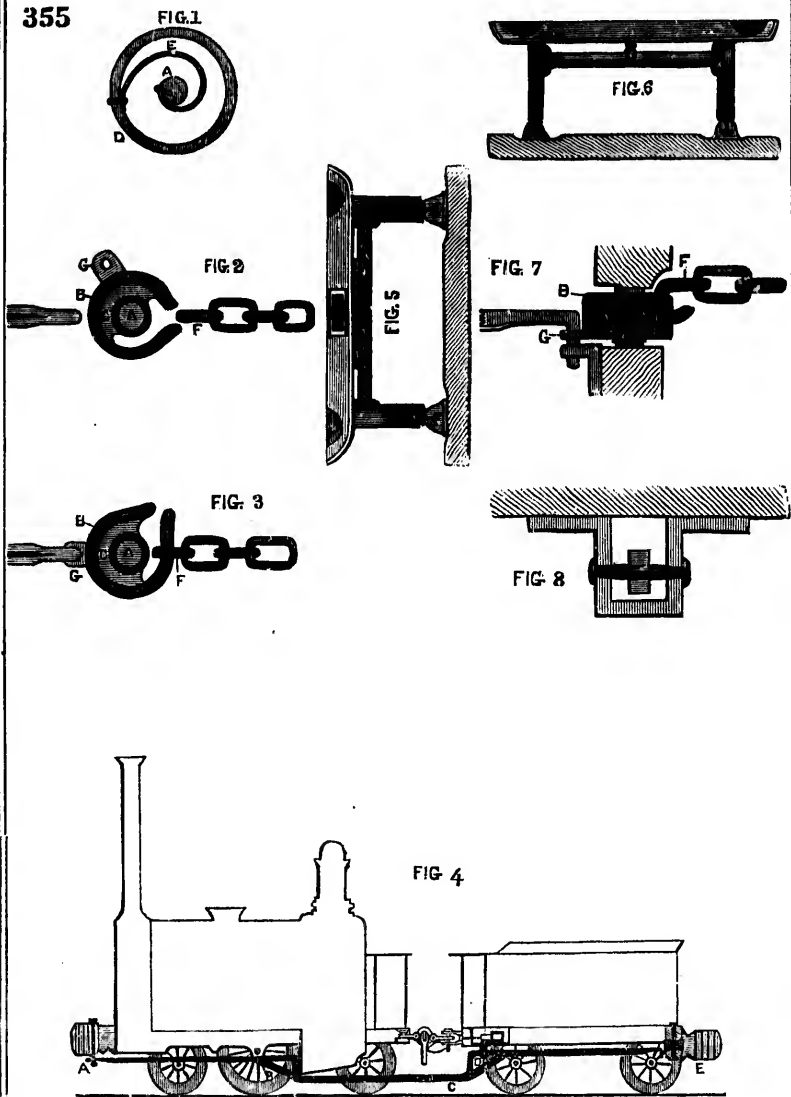
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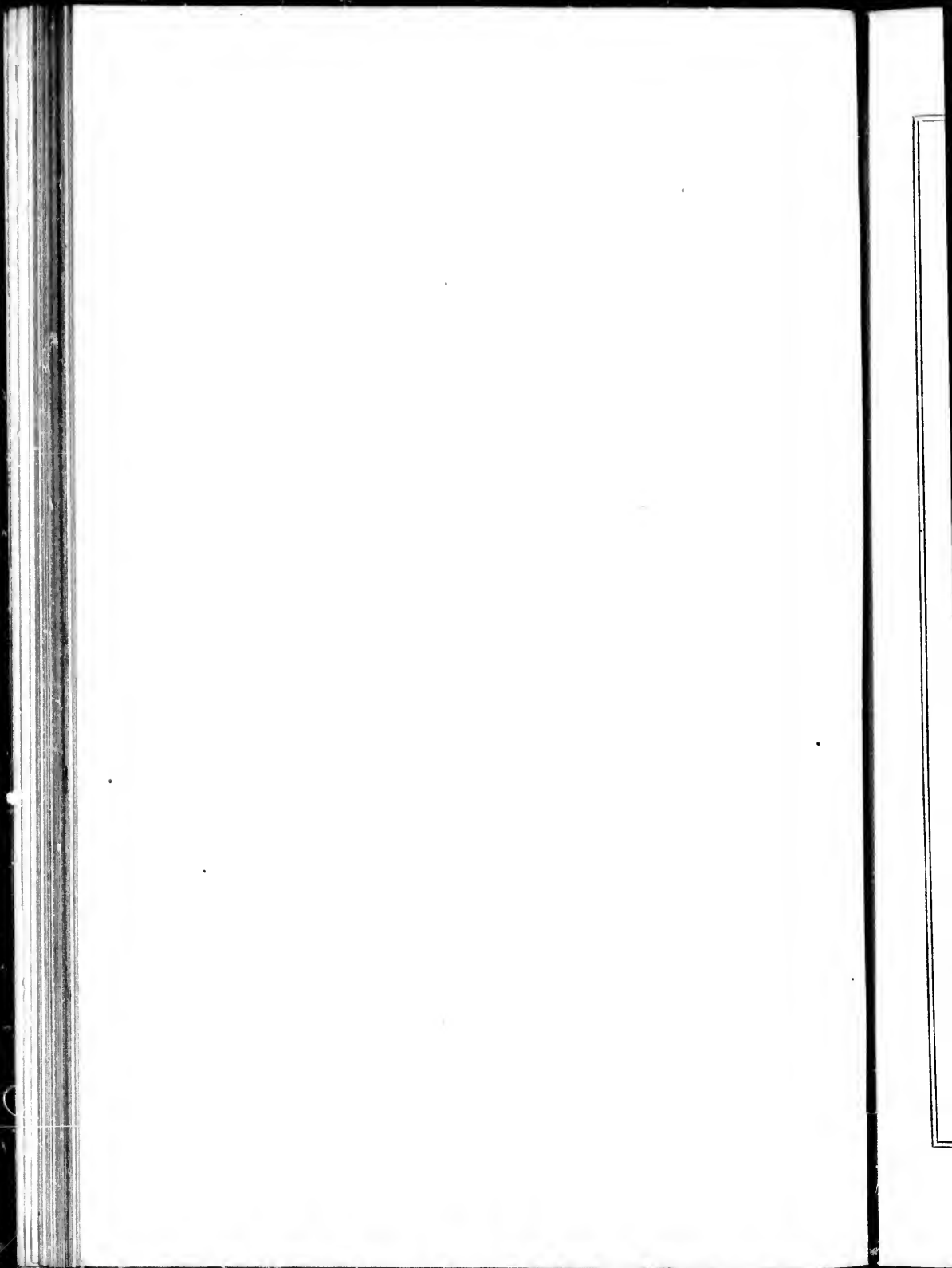




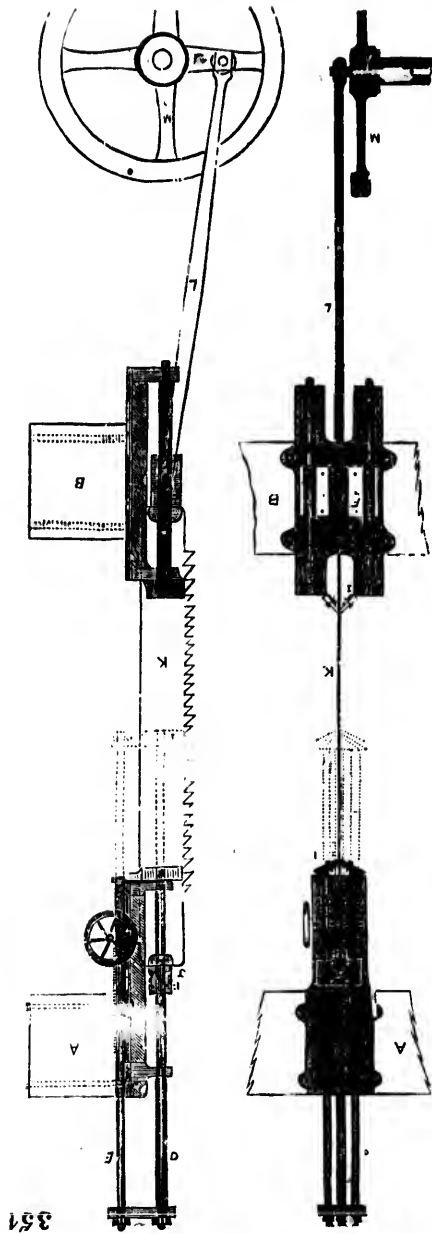
Gregory's Self-acting Apparatus for disconnecting Railway Carriages.

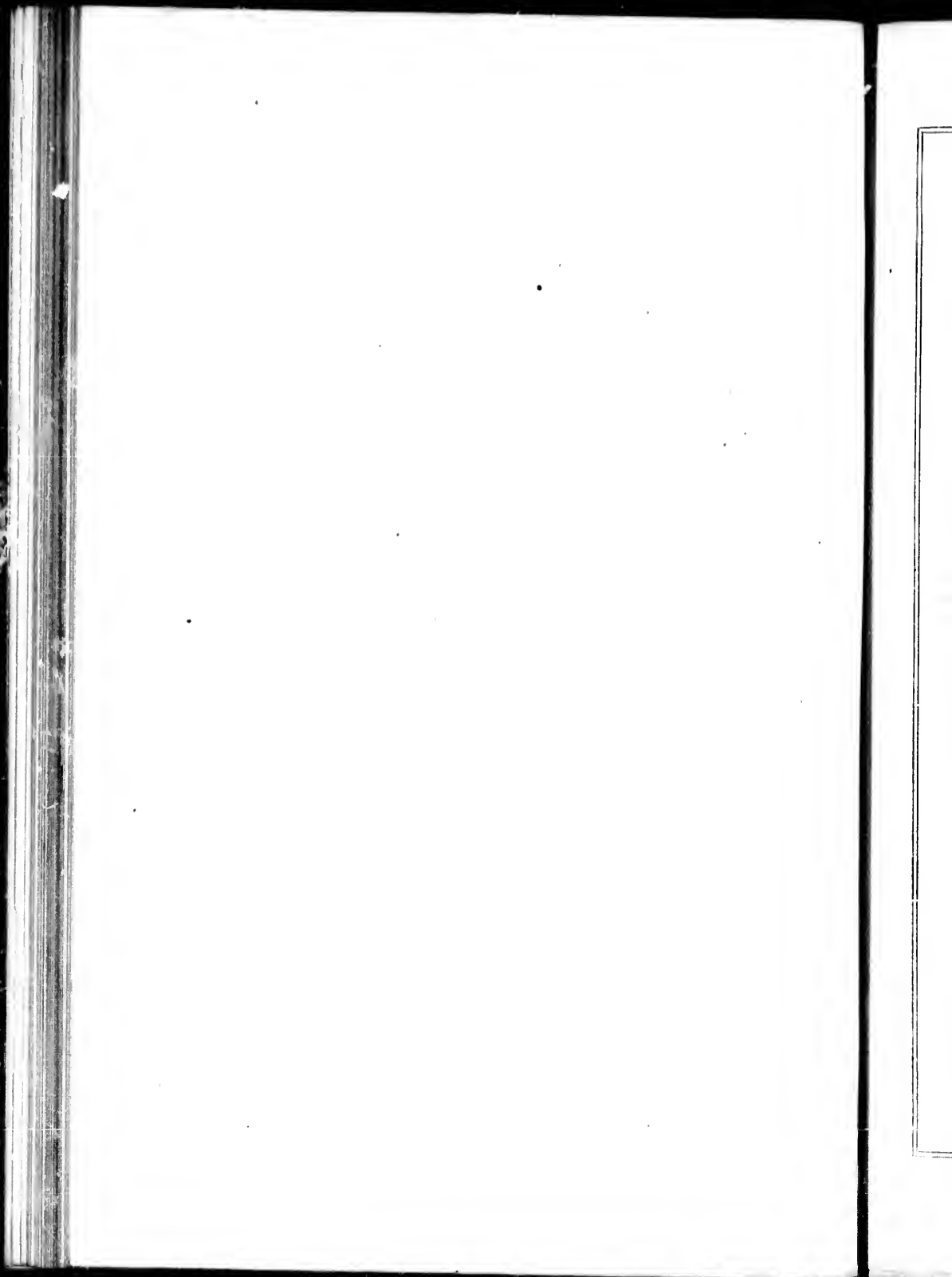
355



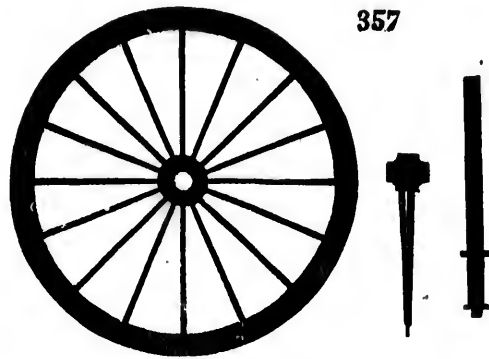


Dawson's improvements in the manner of working Muley Saws.

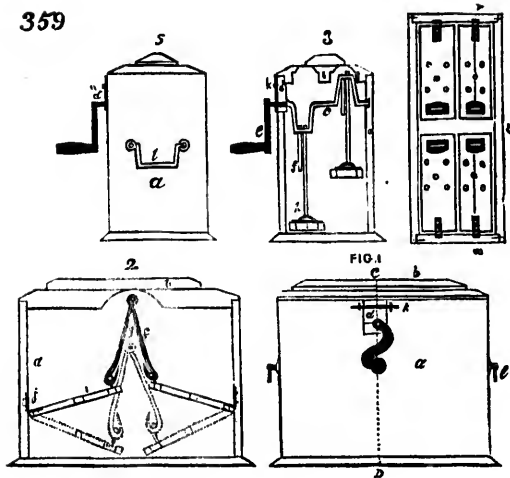




Murdock's improvement in the form of Wheels.



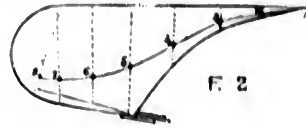
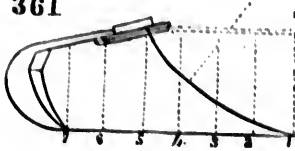
Gumear's Reciprocating Churn.



F
S
V

Knagg's Curvilinear Mould Board for Ploughs.

361



F. 2

Fuller's improvement in Muley Saw Mills.

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FIG. 1.

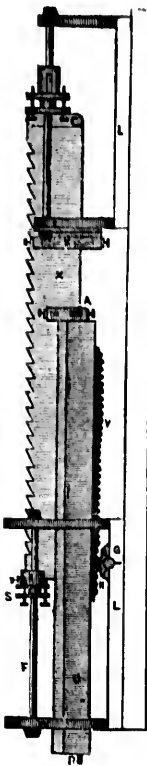
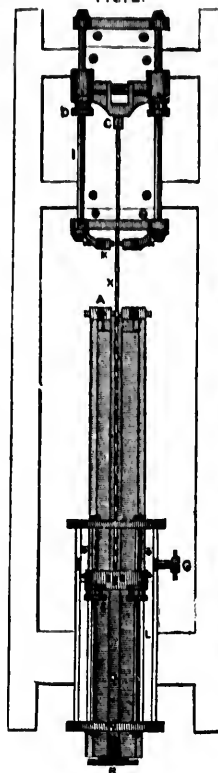


FIG. 2.



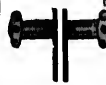
F. 3.



F. 4.



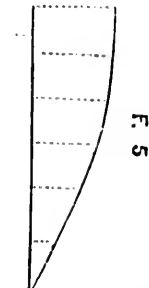
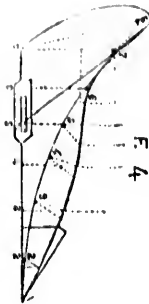
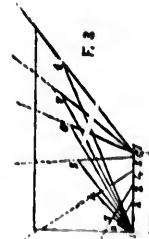
F. 5.

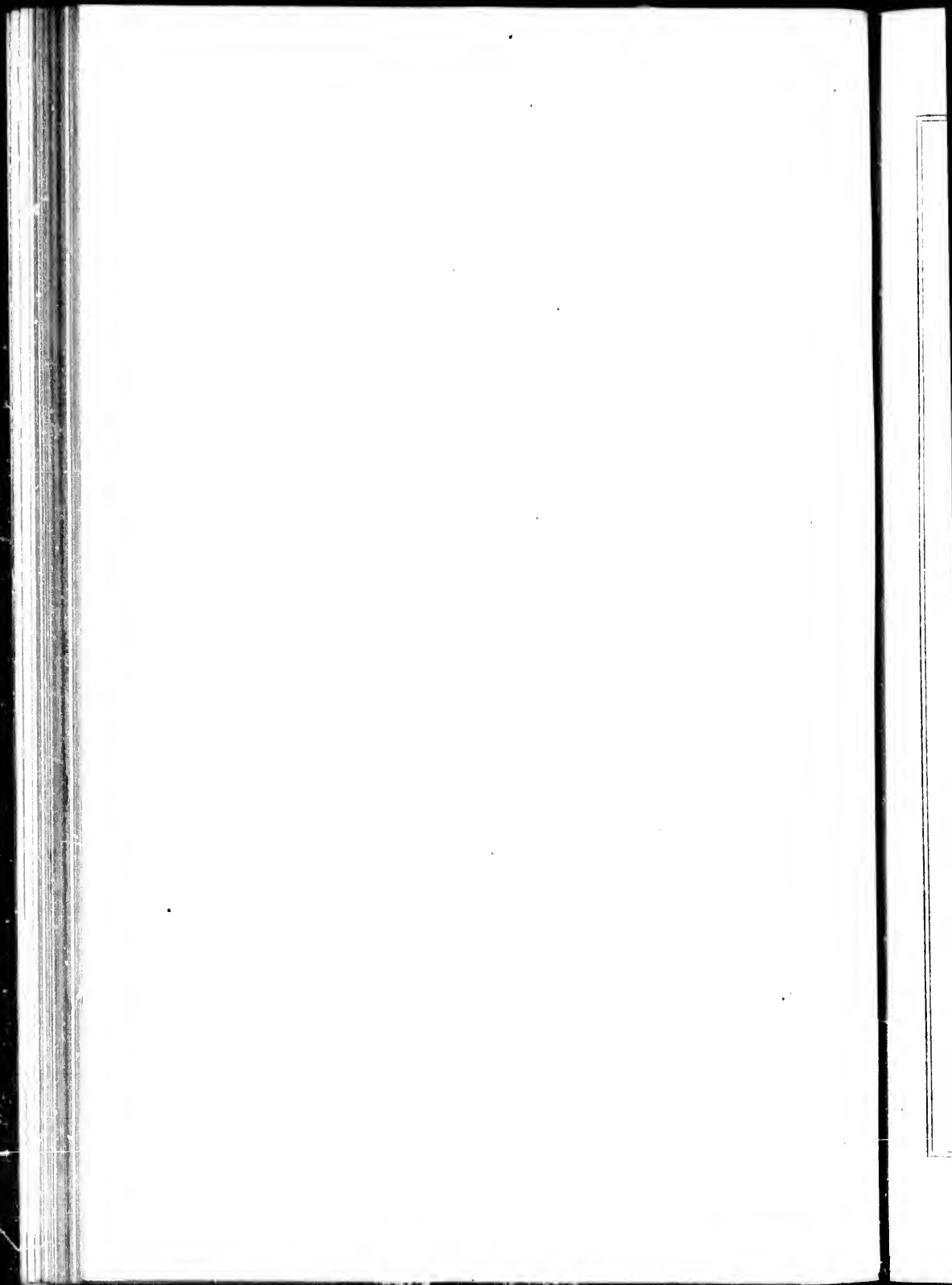


F. 6.



F. 7.

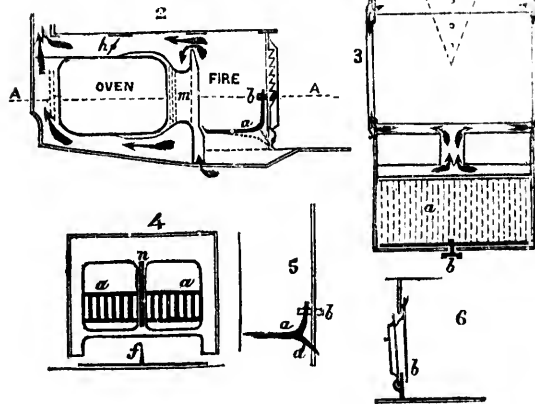
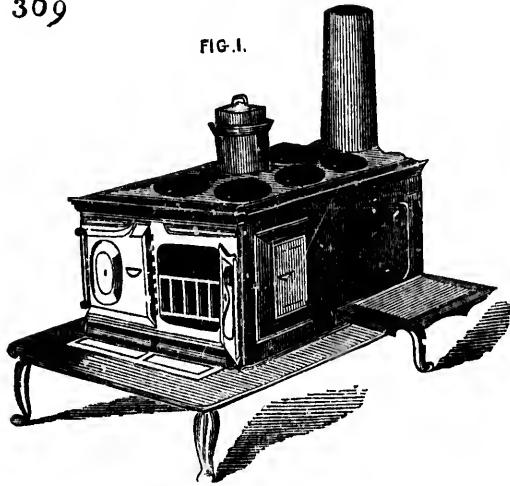


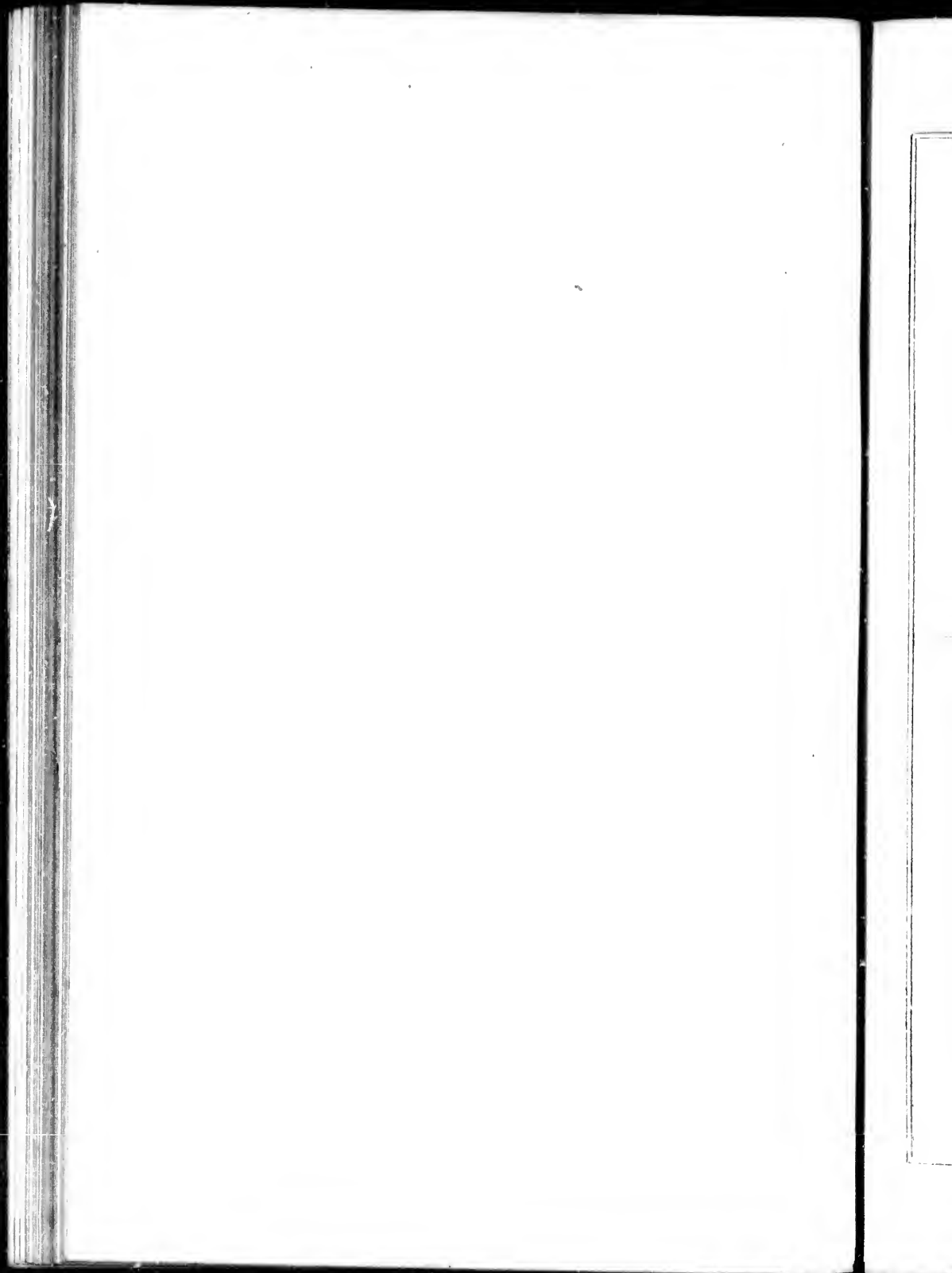


Griffin's New Improvements on Cooking Stoves.

369

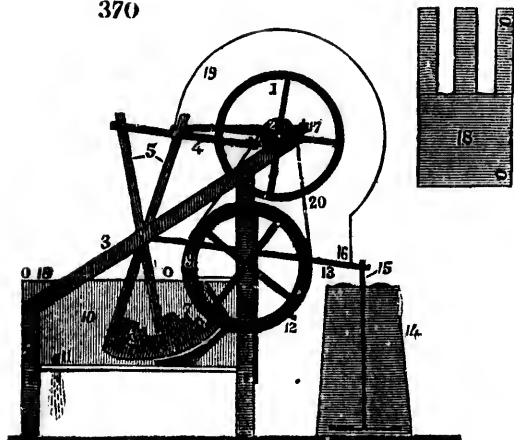
FIG. 1.





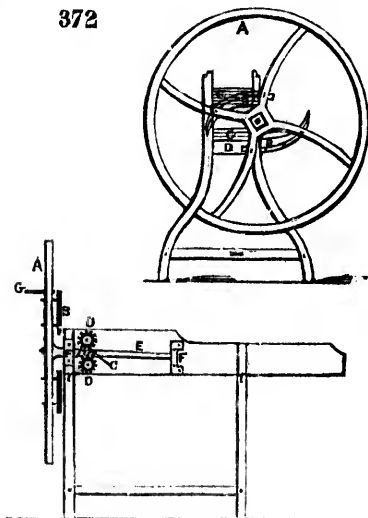
Lossing's Washing and Churning Machine.

370



Gifford's New Improvement on a Machine for Cutting Straw.

372



Paradis' improvement in the construction of Threshing Machines.

377

Fig 4

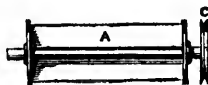


Fig 3

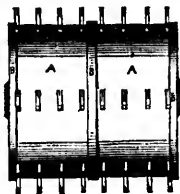
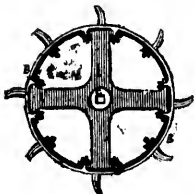


Fig 2

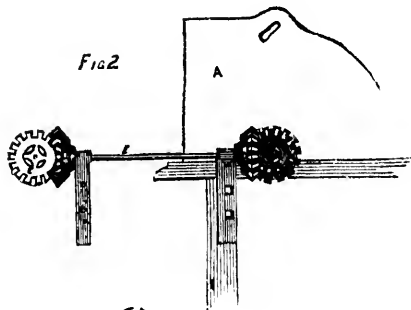
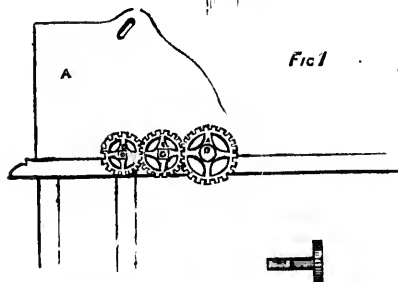
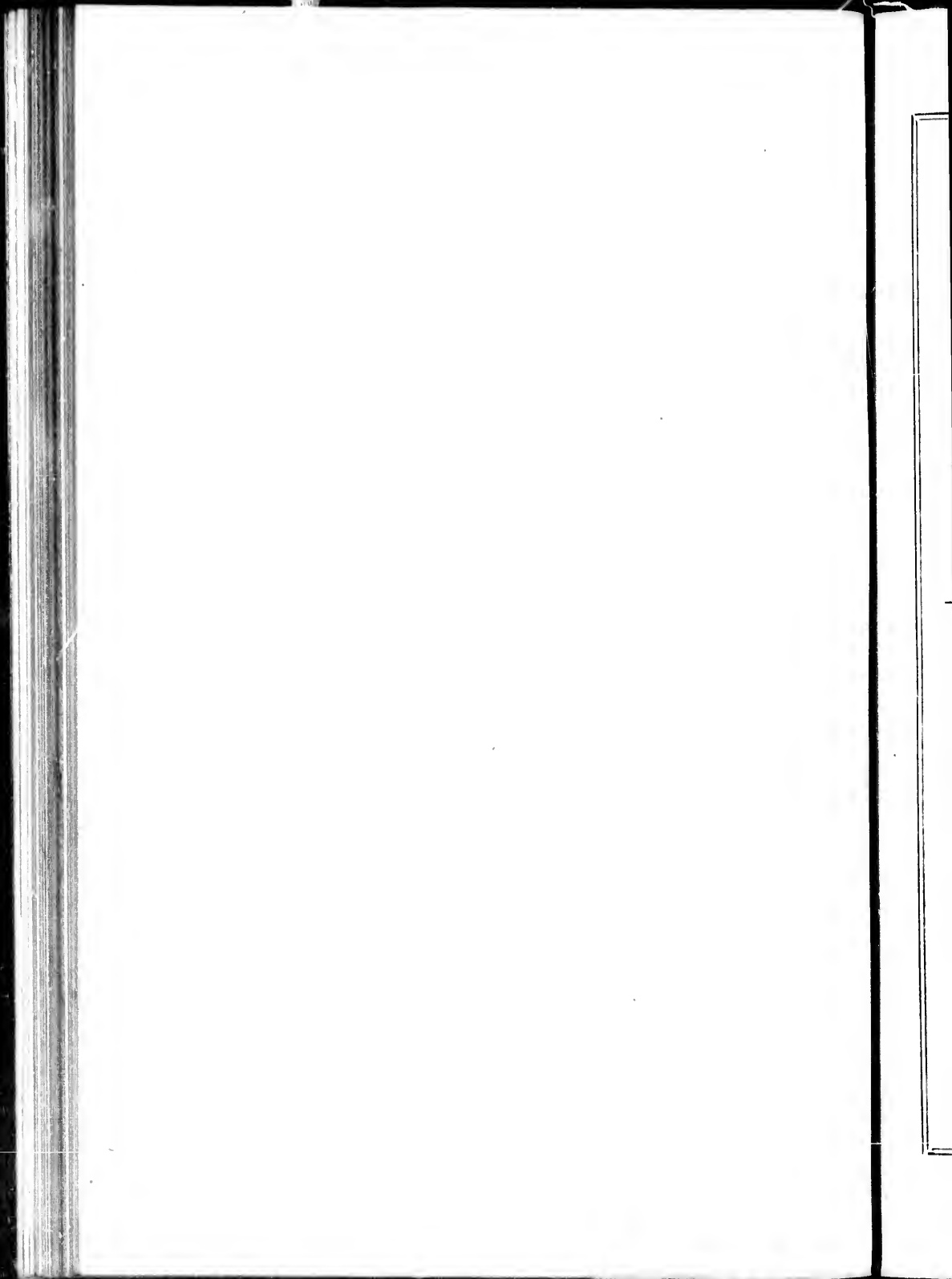
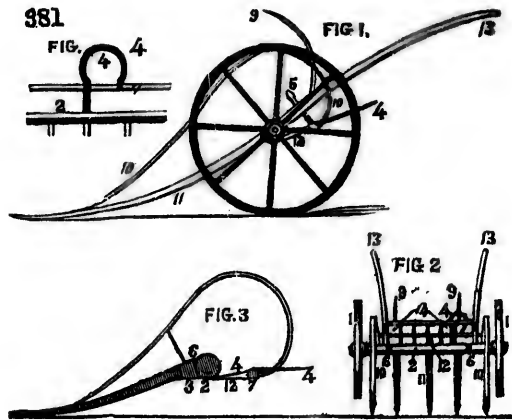


Fig 1

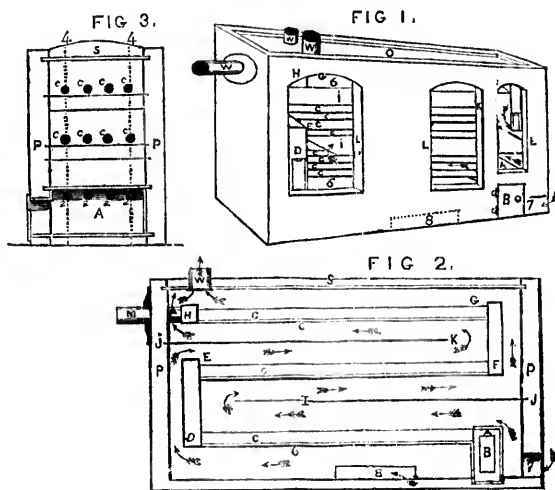


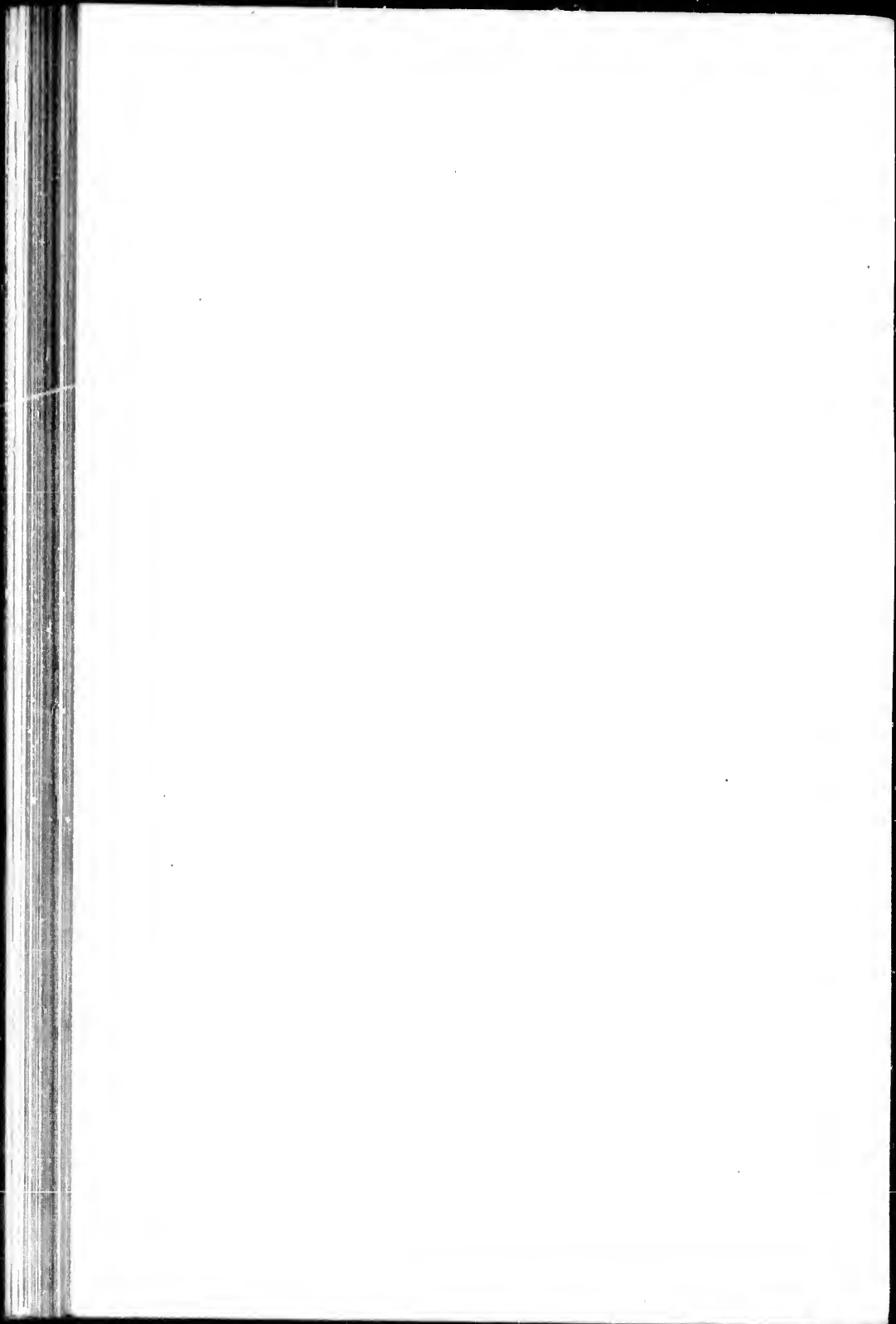


Brown's New Improvement in making Grain Rakes.

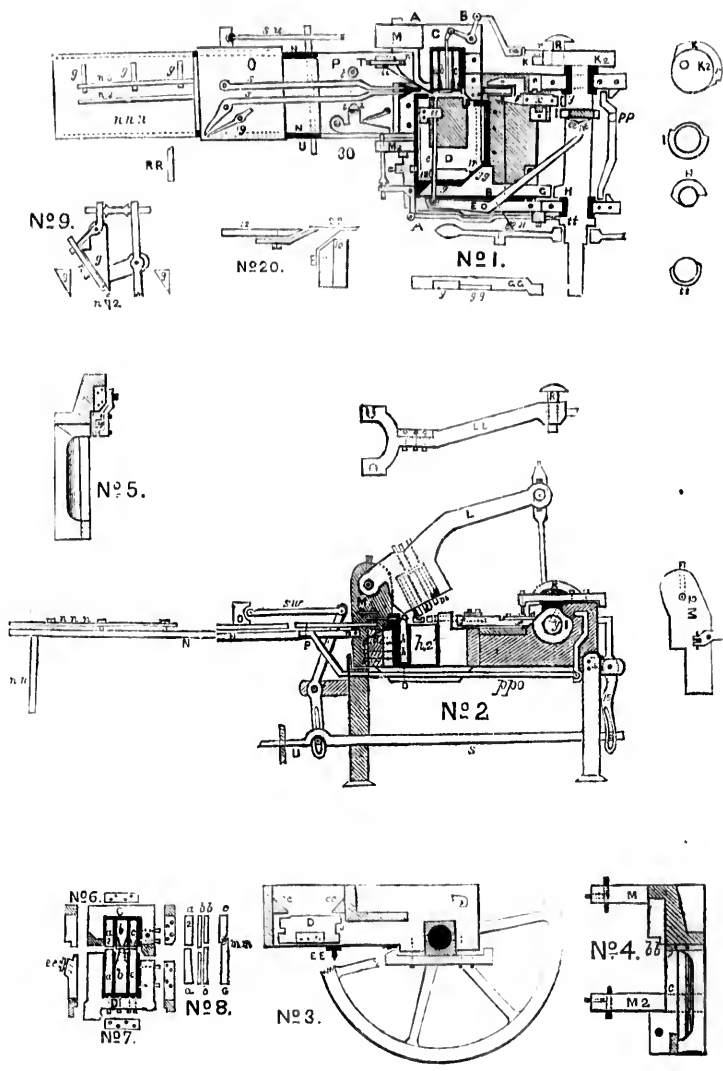


382—Tiffany's Improved apparatus for warming air and ventilating houses.





384—Stacy's New Method of constructing Spike Machines.

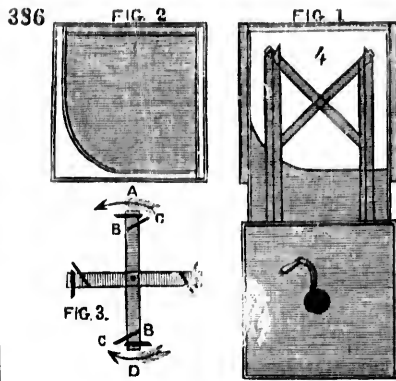
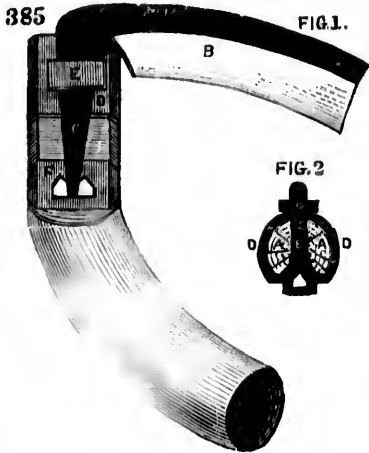


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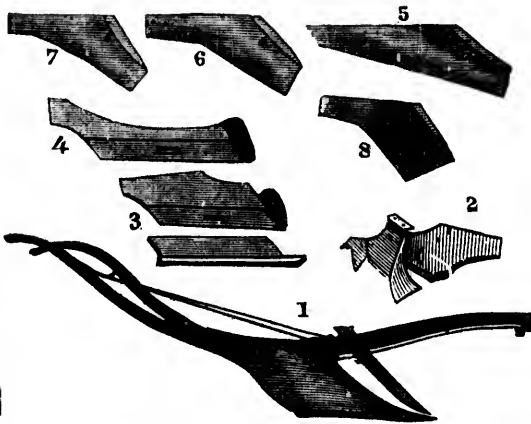
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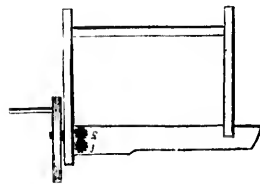
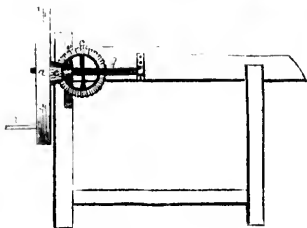
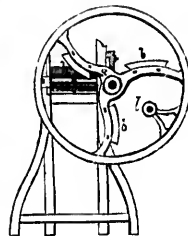
Allchin's improved Scythe Holder *Ansley's Centrifugal & Centripetal Churn.*



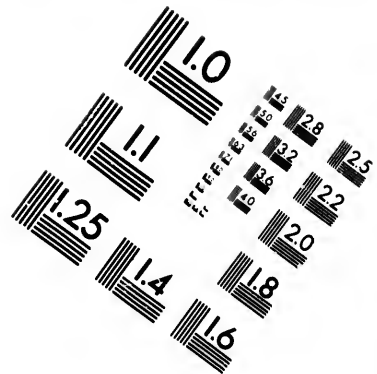
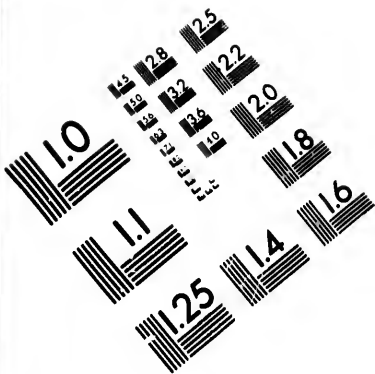
Burley's Improvement on the Wooden Plough.



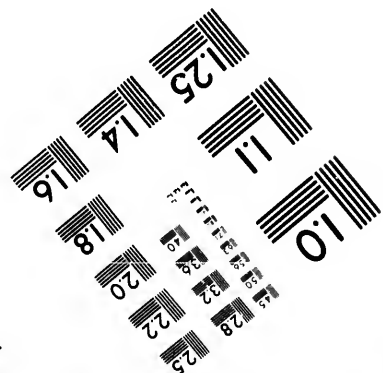
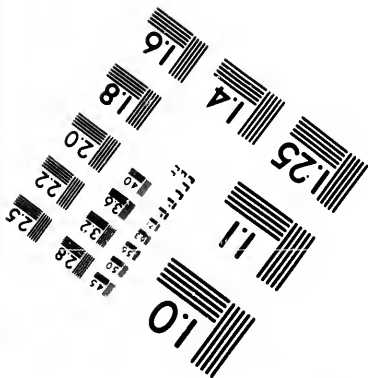
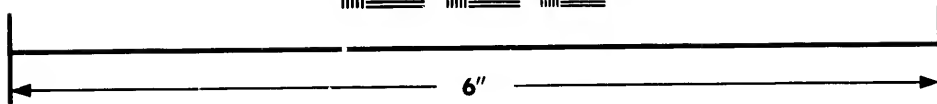
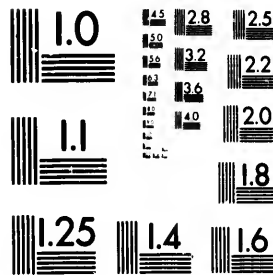
388—*Higley's Improved Machine for Cutting Hay and Straw.*







**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

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WEBSTER, N.Y. 14580
(716) 872-4503

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389—Wilders' Machine for planing, tonguing, and grooving Boards.

Fig 1

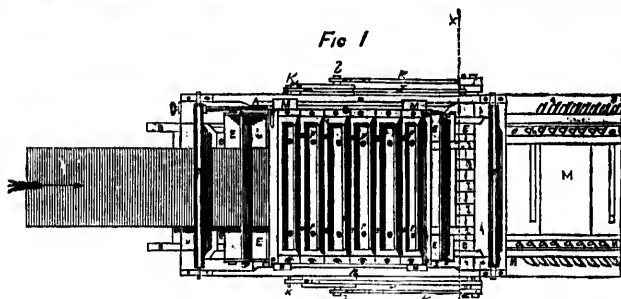


Fig 2

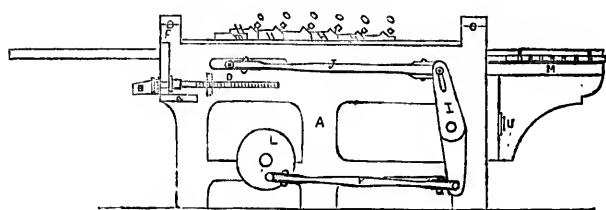


Fig 3

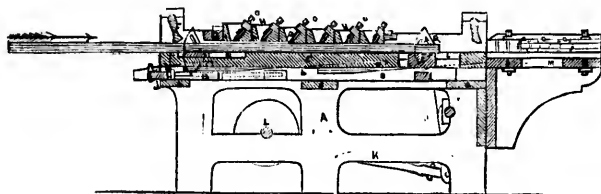


Fig 4



Fig 5

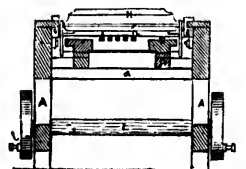
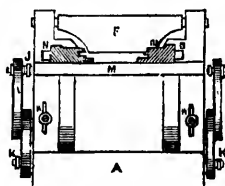
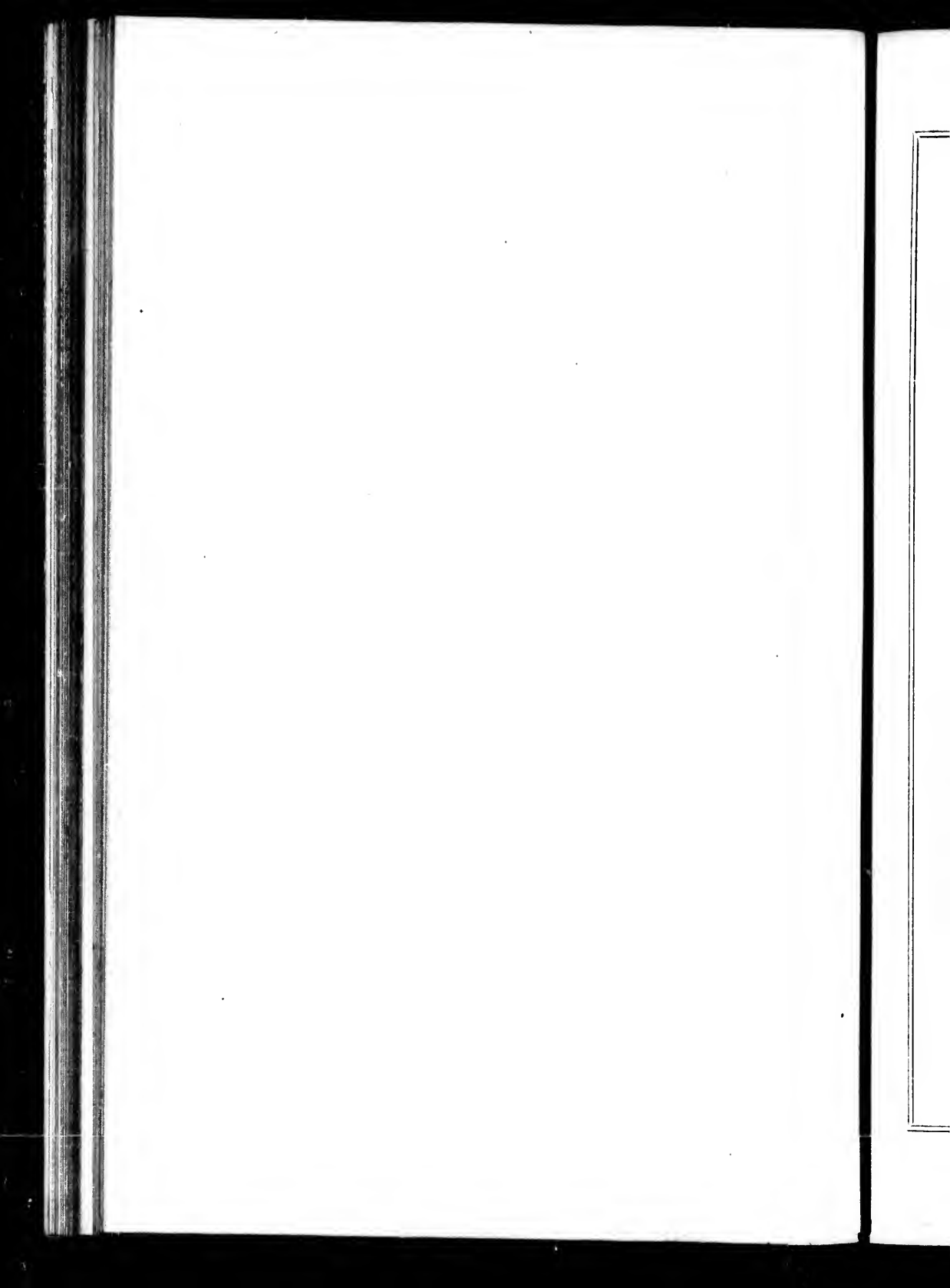
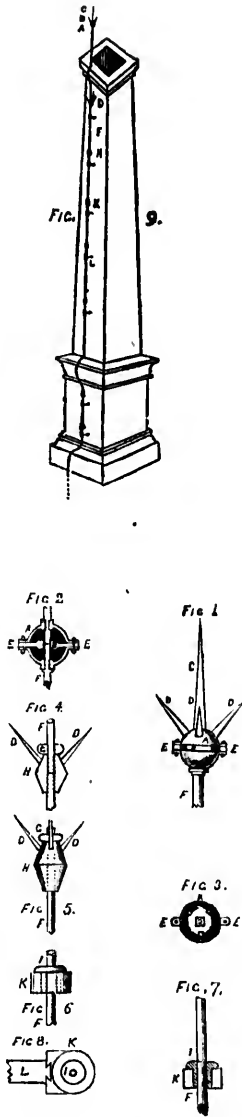


Fig 6

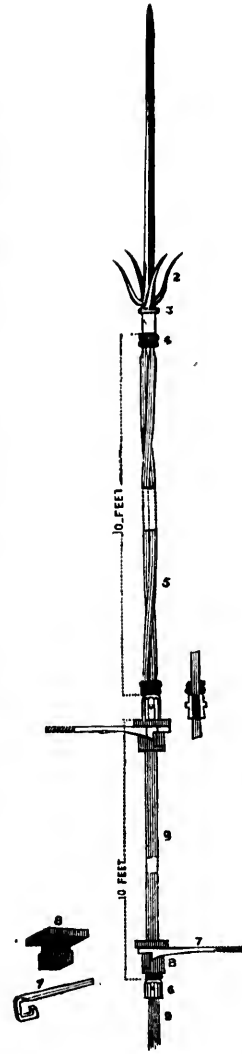


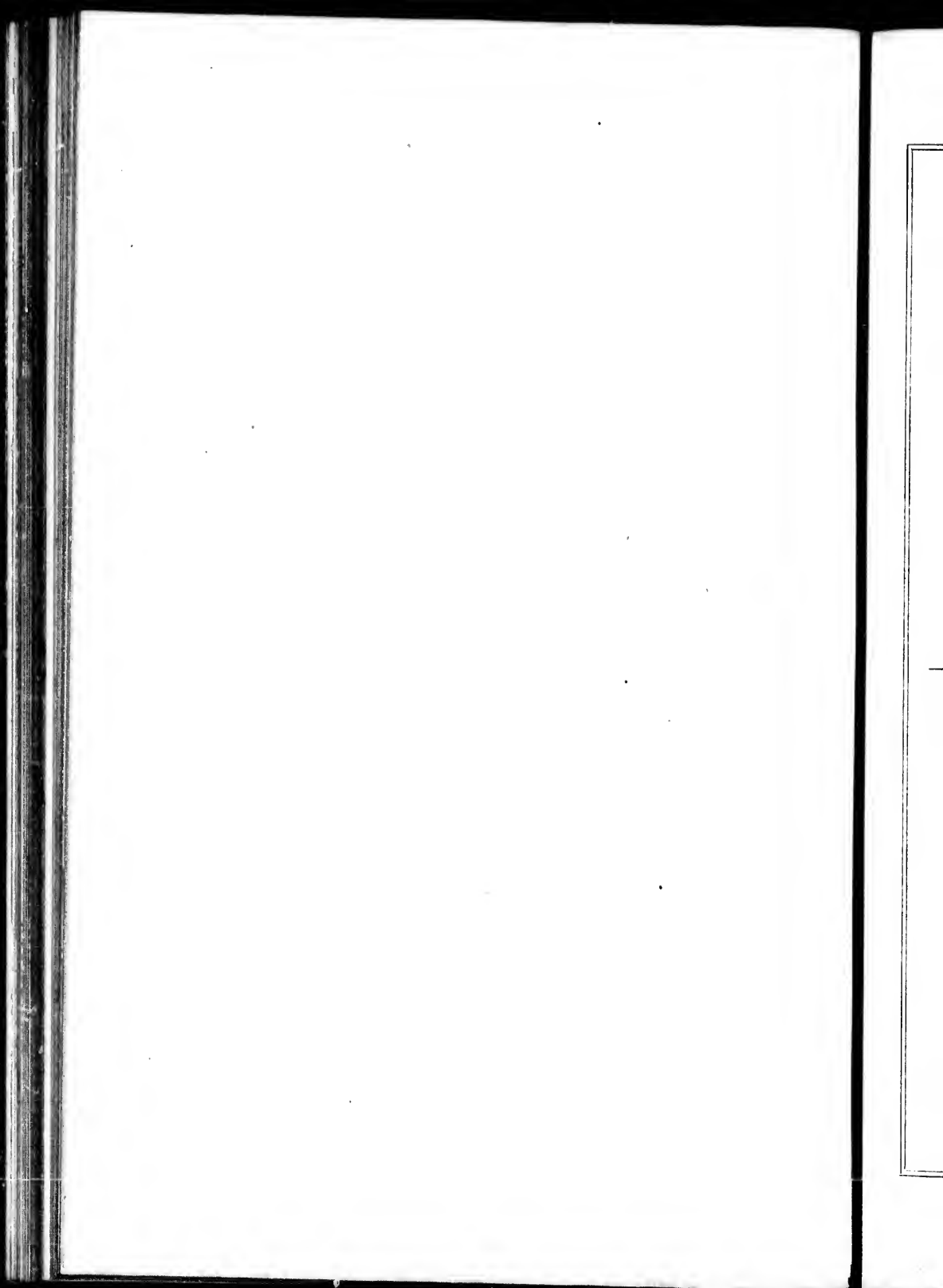


390—Mandigo's New Improvement in the Construction of Lightning Rods.

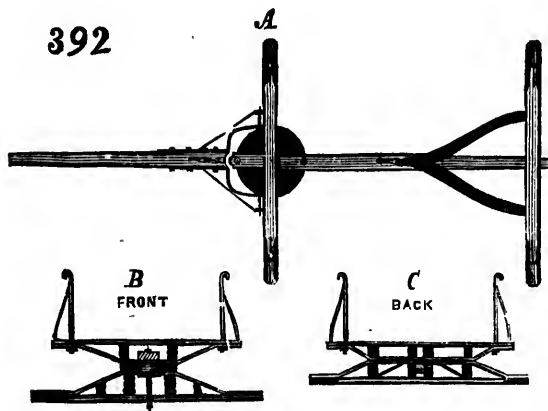


391—Bounds' improvement in the construction of Lightning Conductors.

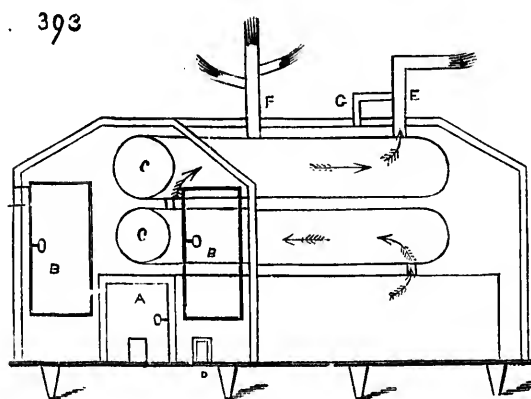




Murdoch's improved Running Gear for Vehicles.

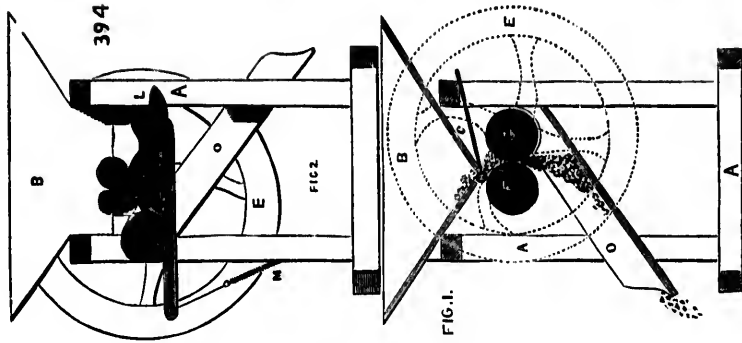


Ansley's Portable Hot Air Furnace and Cooking Stove.



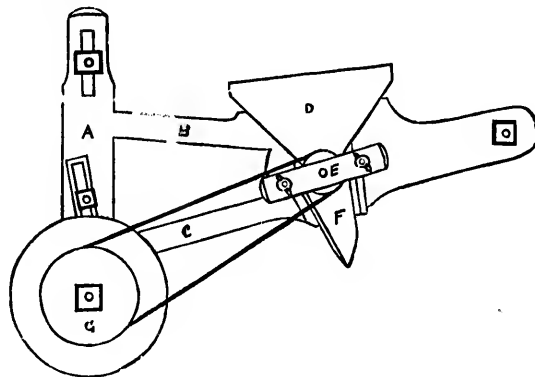


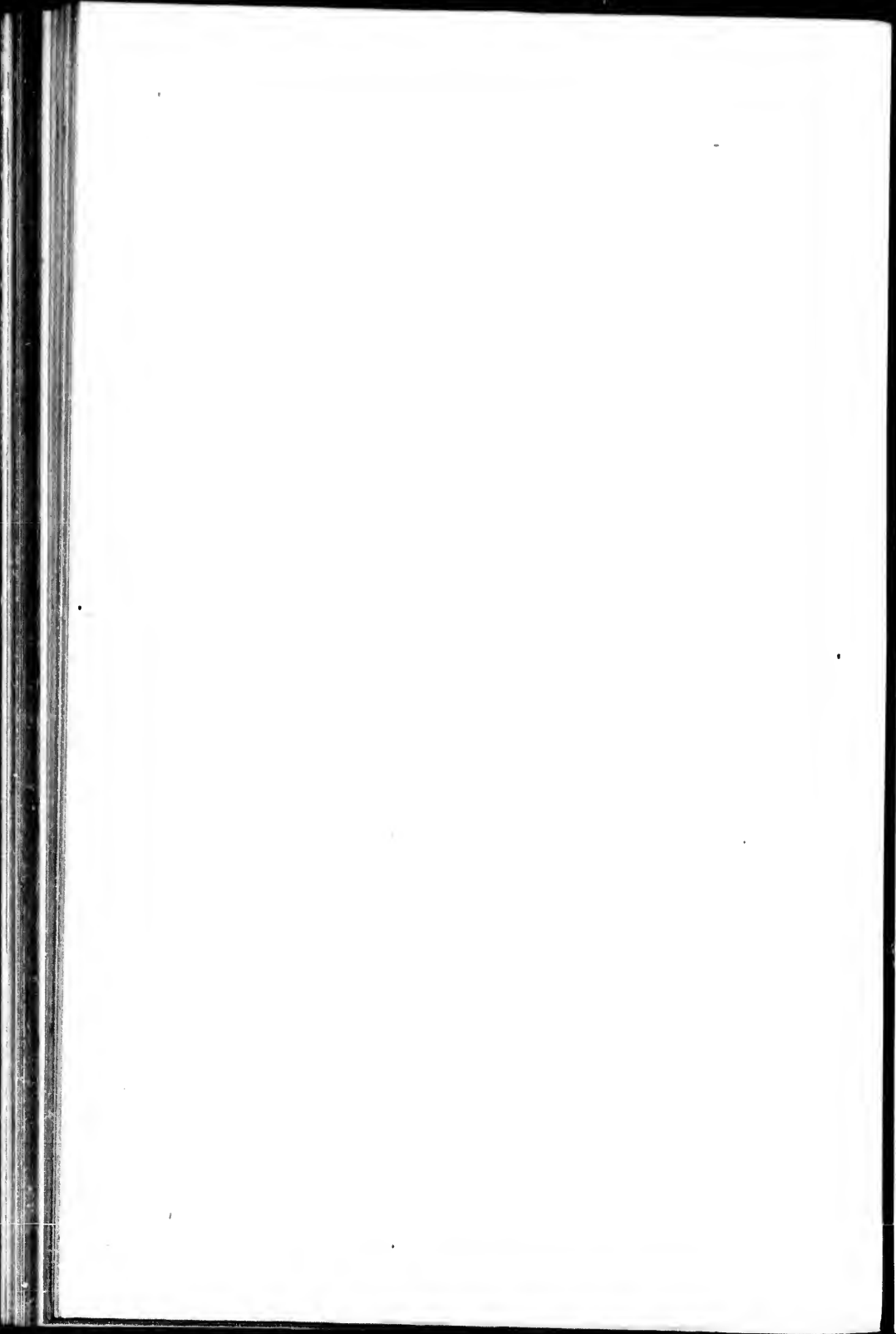
Russell's Corn Crusher.



Murdoch's new improved Seed Drill, to be attached to a Plough."

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Paradis' improvement in the construction of Threshing Machines.
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Fig 4



Fig 5

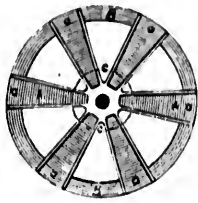


Fig 8

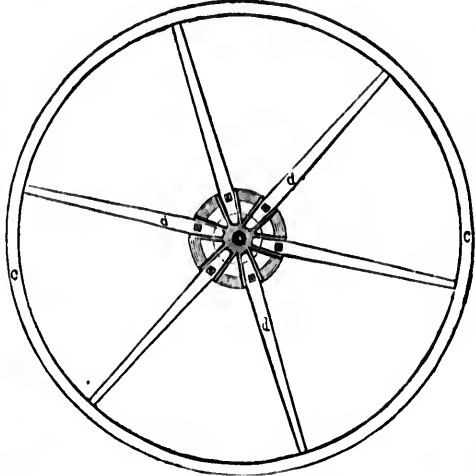


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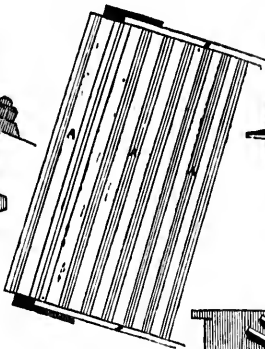
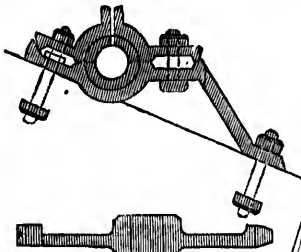


Fig 3

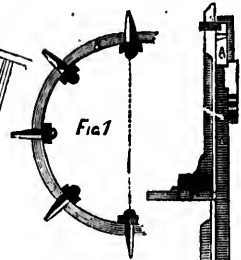
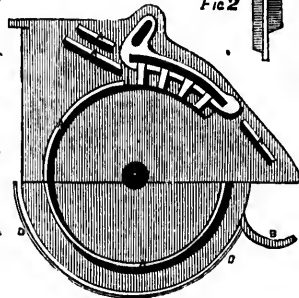
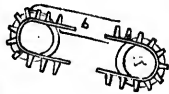
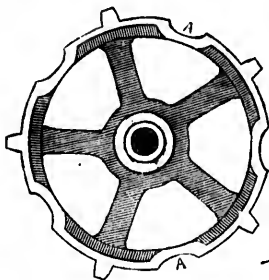


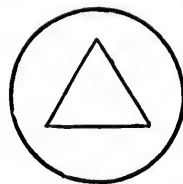
Fig 1

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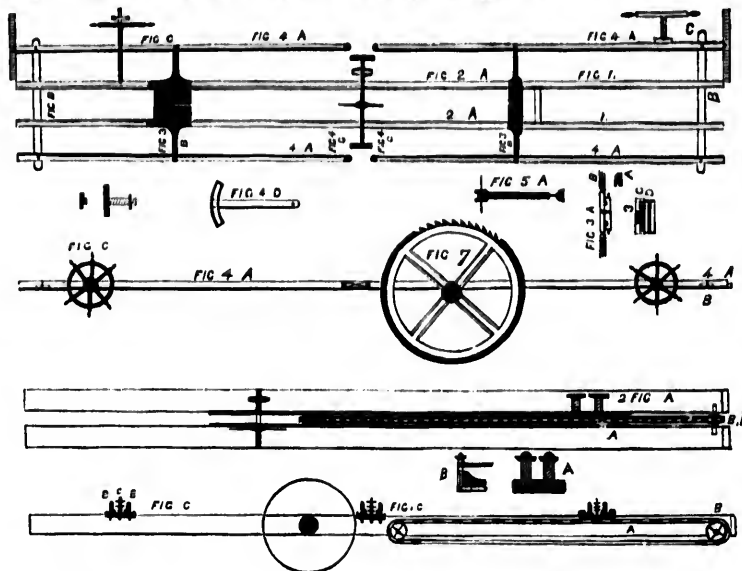


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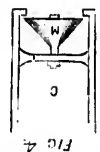
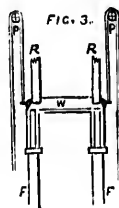
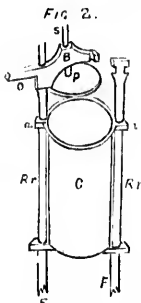
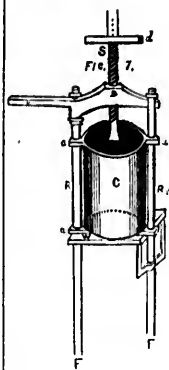
400—*Ruttan's Improved Gun Barrel and Projectile.*

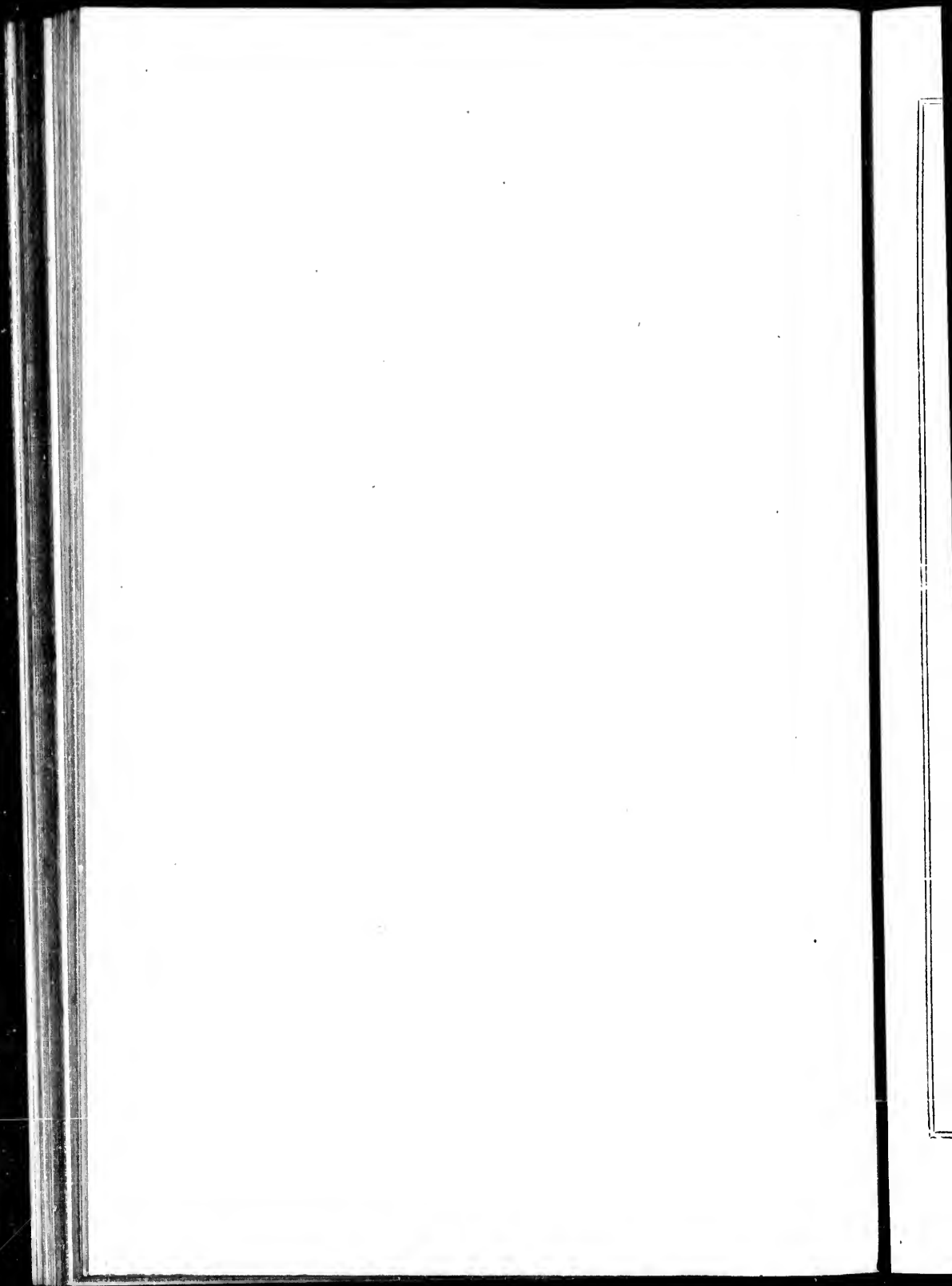


401—*Richard's Machine for sawing straight and crooked wood.*

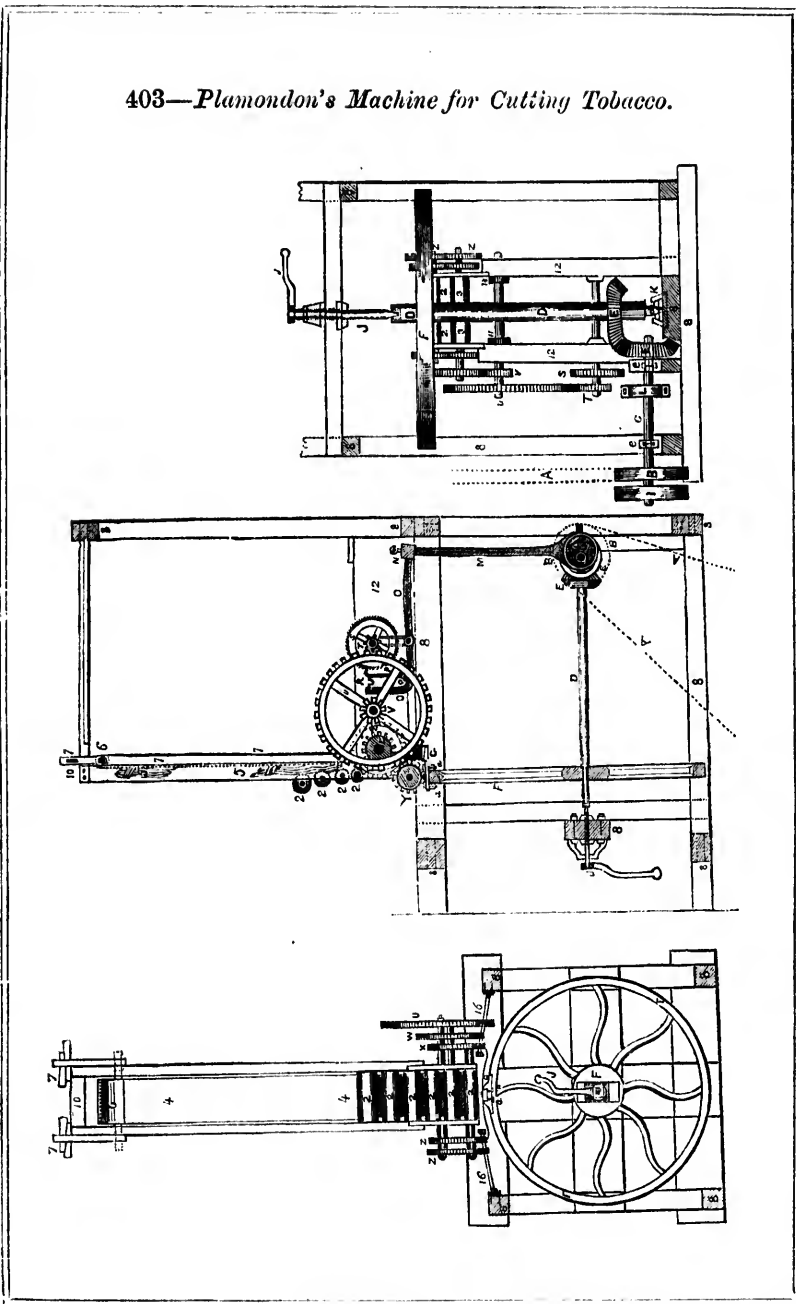


402—*Bell's Press or Machine for the manufacture of Earthenware Pipes and Draining Tiles.*

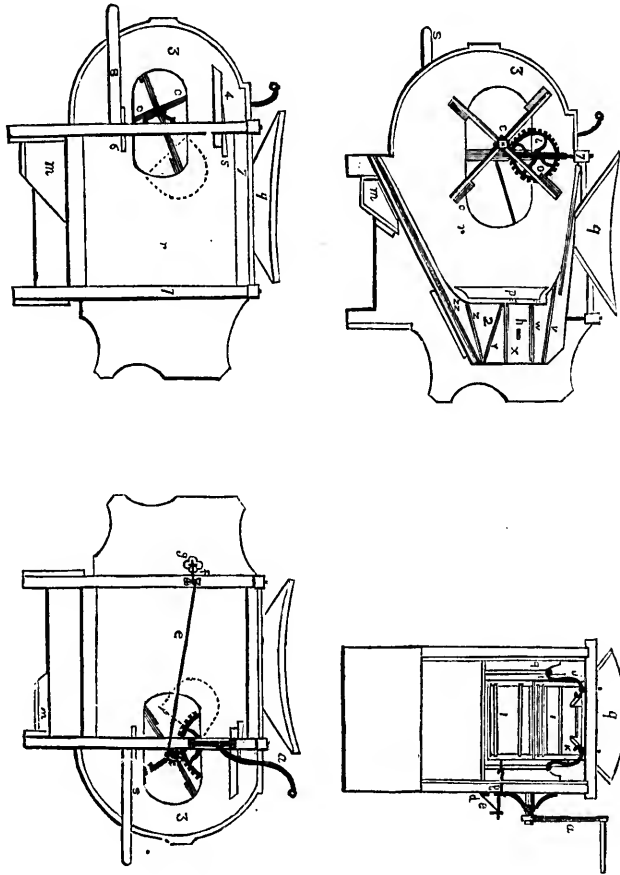




403—*Plamondon's Machine for Cutting Tobacco.*

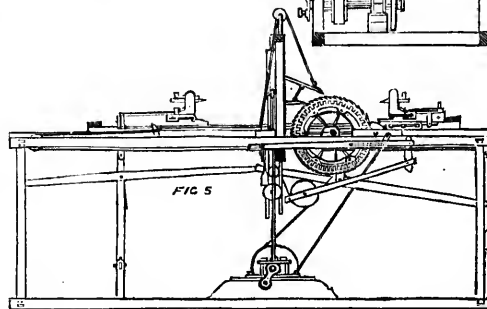
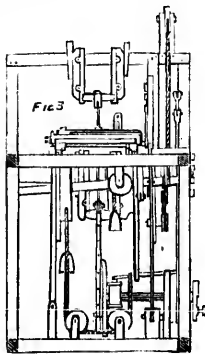
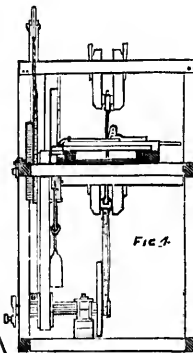
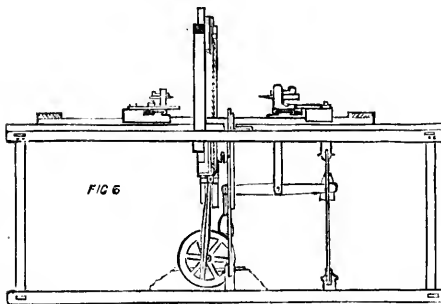
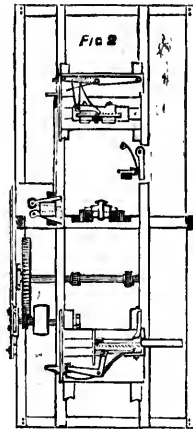
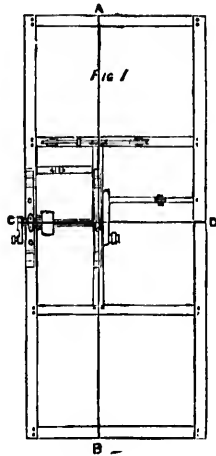


404—*Brigham's improvement in the construction of Fanning Mills.*

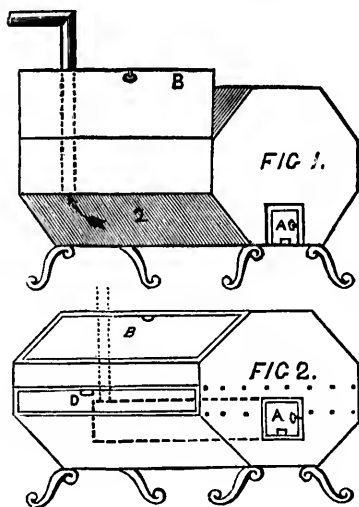


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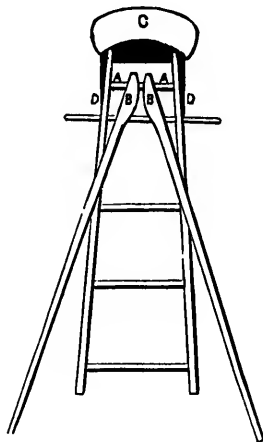
405—*Kent's self-gigging, self-setting, and self-regulating Saw Mill.*



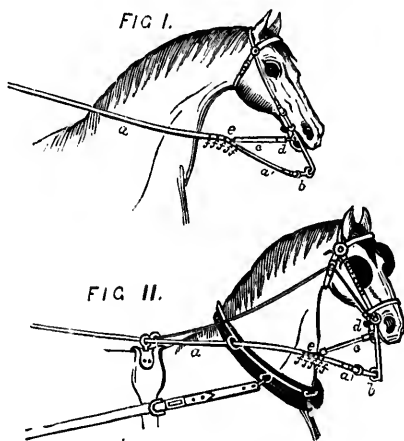
406—*Dean's Double Reflector for baking purposes.*



407—*Everitt's Improved Ladder.*

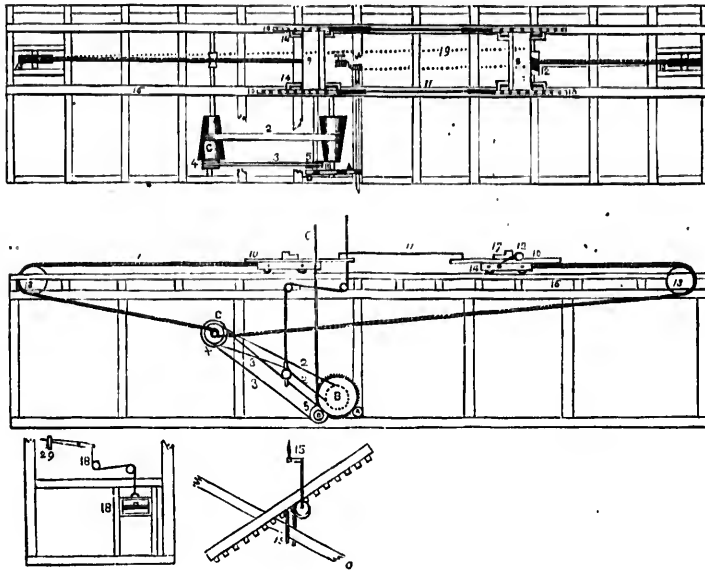


408—*Holwell's Duplex Safety Rein.*

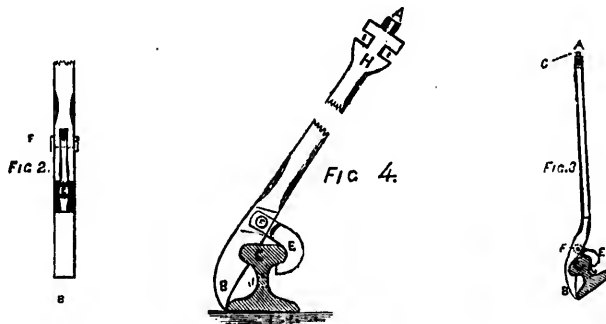


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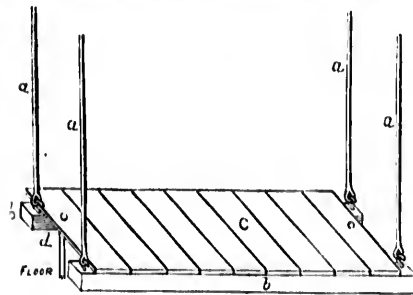
409—*Merritt's improved carriage and feeding and gidding back works for Steam and Water Saw Mills.*



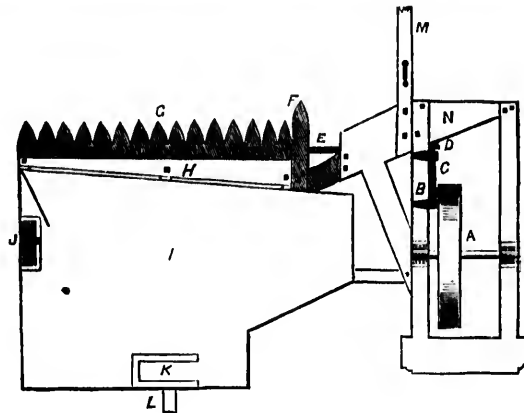
410—*Wood's improved Cant Hook for piling Railway Iron Bars.*



412—*Rockwell's Limited Horse Swing.*

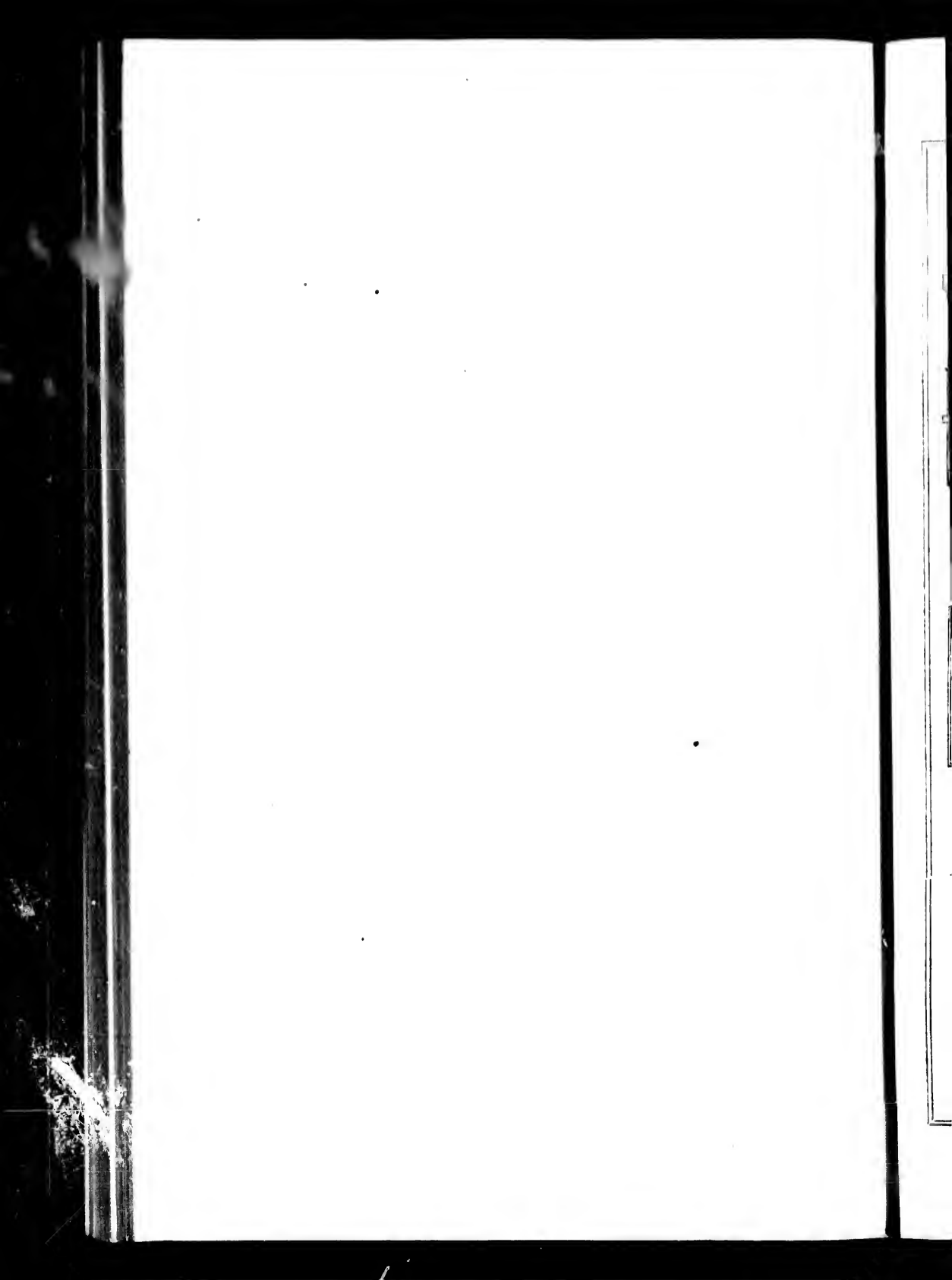


413—*Smith's improvements in the construction of Harvesting Machines.*

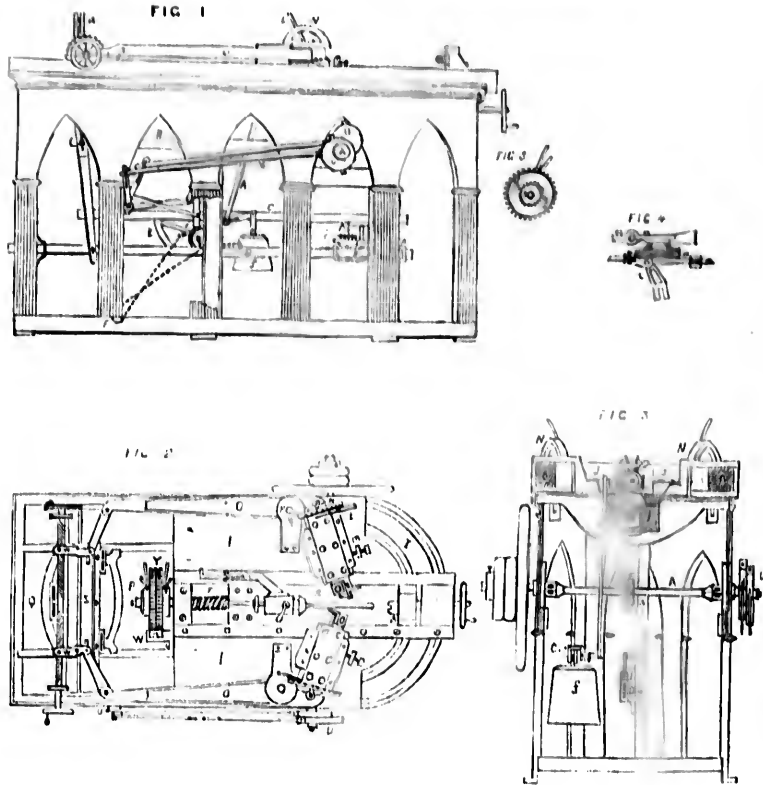


414—*Morley's Improved Mould Board for Ploughs.*





415—*McIntyre's File Cutting Machine.*



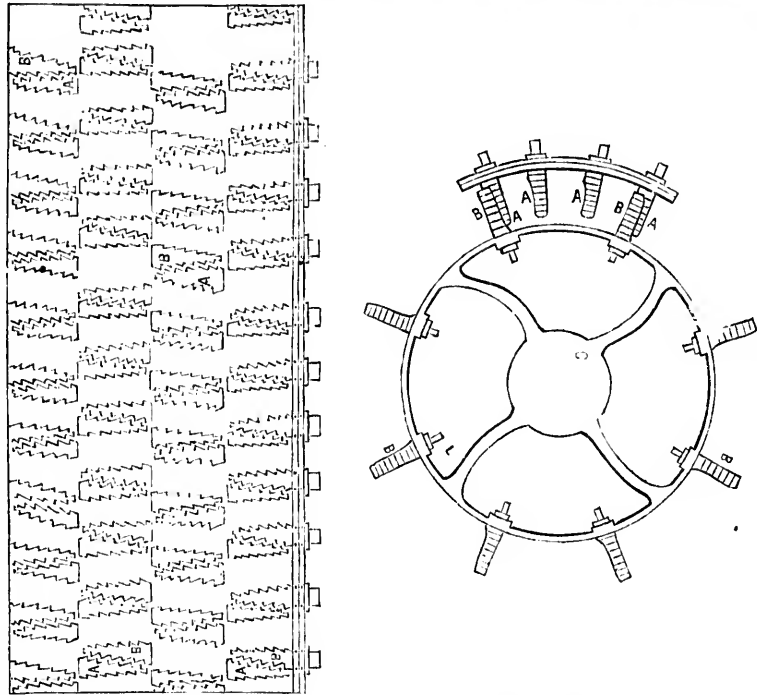
420—*Urquhart's Improved Elliptic Spring.*



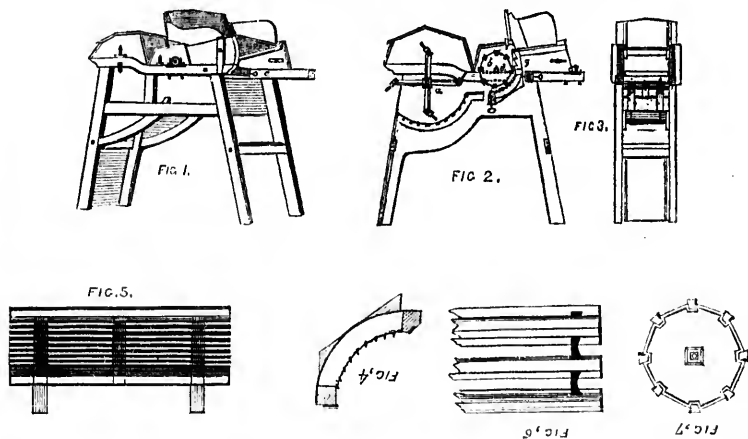
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416—*Rodier's Improvement in the construction of Threshing Machines.*



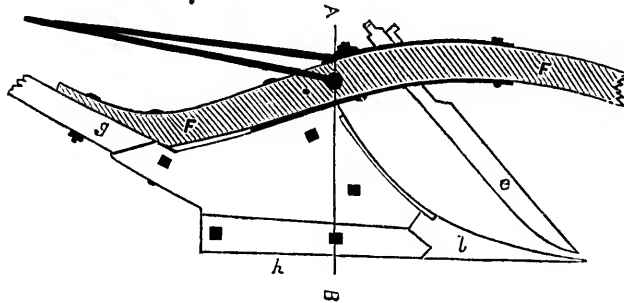
418—*Handford's Improved Threshing Machine.*



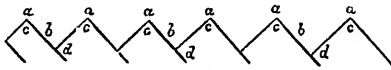
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417—*Armstrong's Improvement in the construction of Ploughs.*

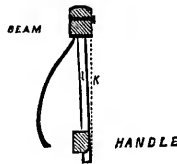
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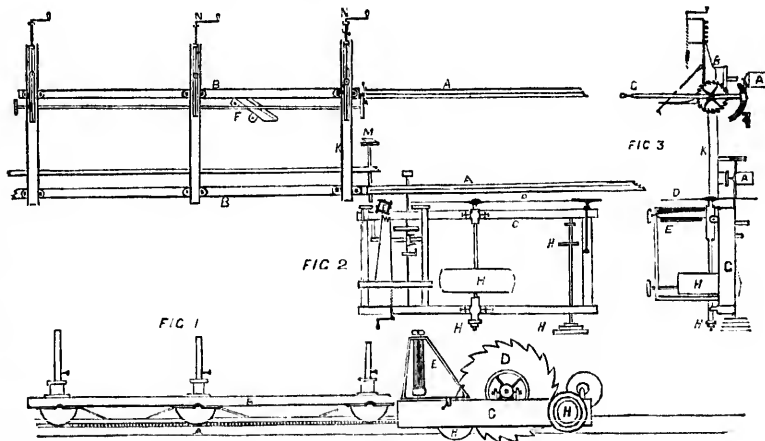
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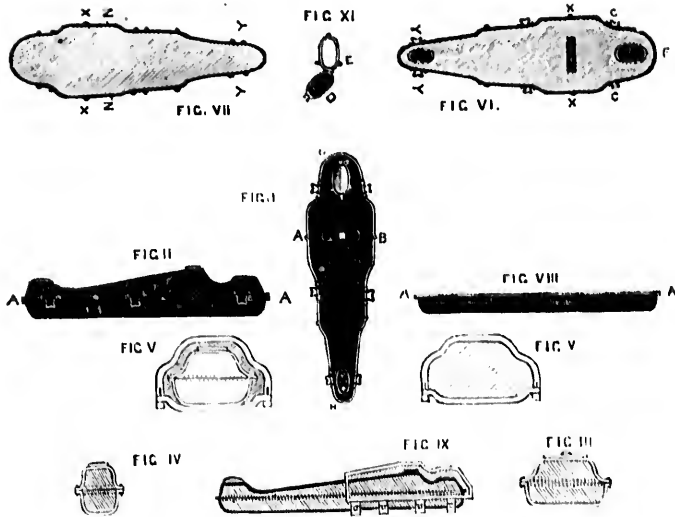


419—*Walbridge's Machine for Planing and Sawing Lumber.*

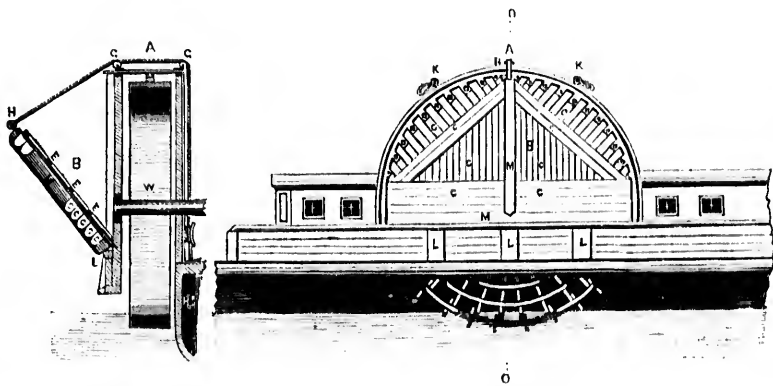


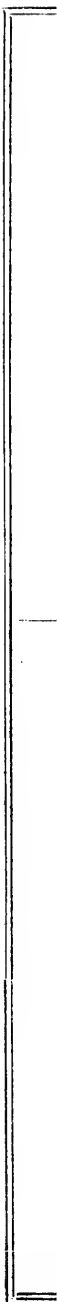


421—Ladd's Metallic Burial Case.

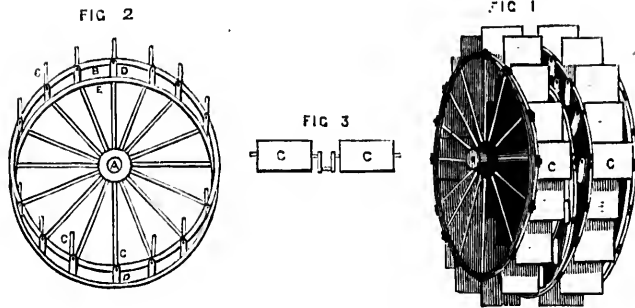


422—Thomas' Paddle Box Tubular Raft.

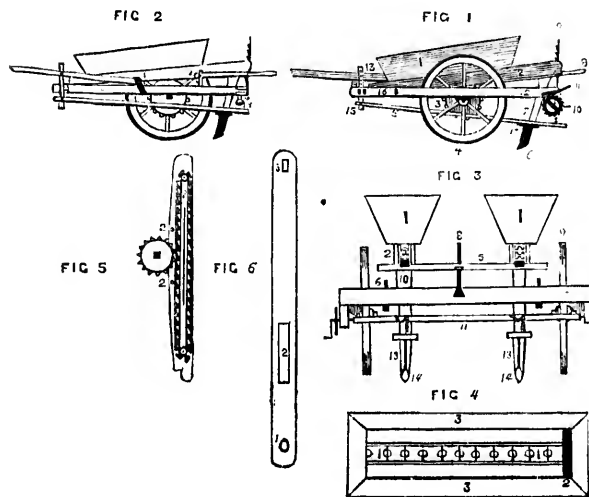




423—Spence's Self-adjusting Paddle Wheel.

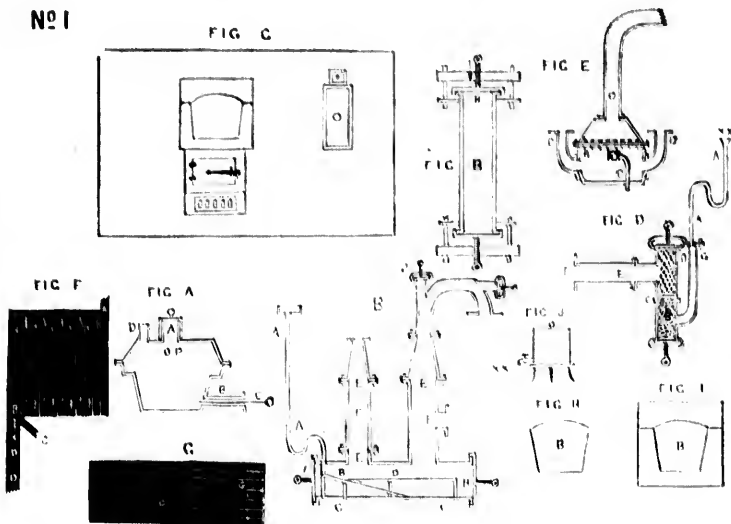


426—Anderson's machine for Planting Potatoes.

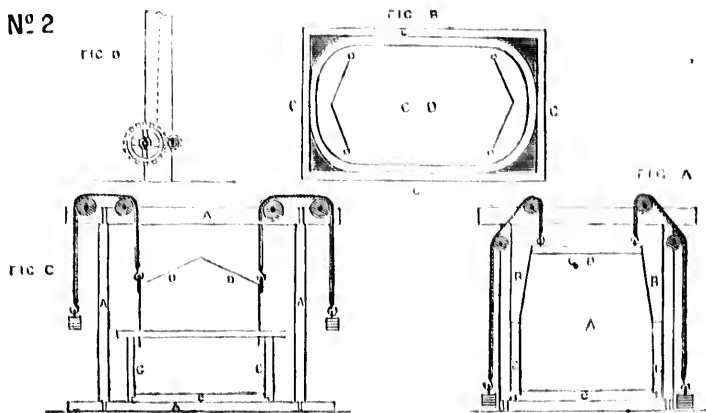


424—Robitaille's Apparatus for producing Gas from resin, oil, &c.

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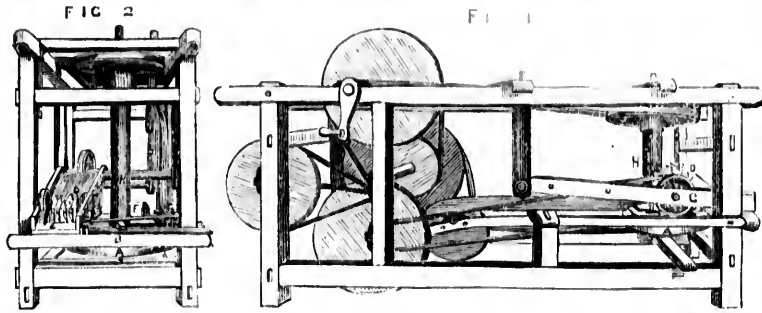


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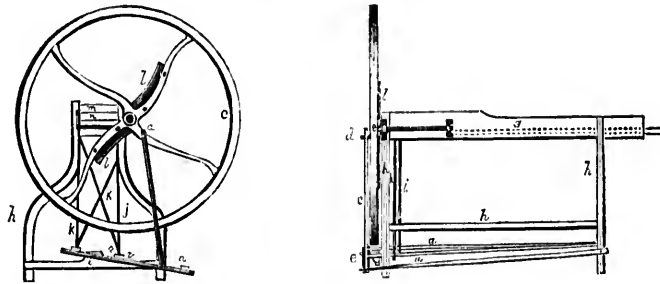




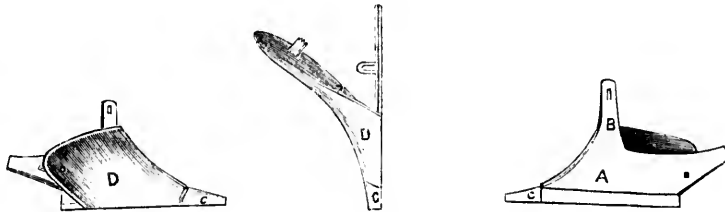
427—Southwick's apparatus for crushing, drying, and otherwise preparing potatoes and other vegetable substances, &c. for food.



428—Reese's improvement in the manufacture of a Straw Cutting Machine.

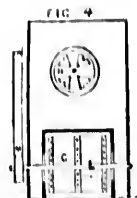
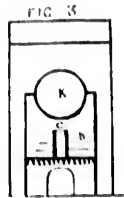
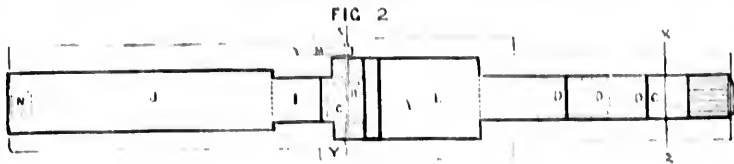
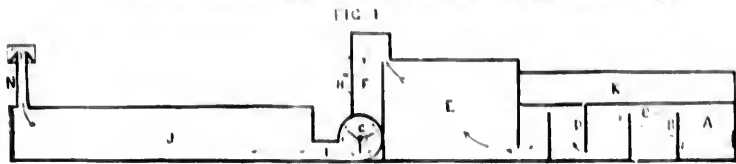


429—Turnbull's improvement in constructing the Canadian Plough.

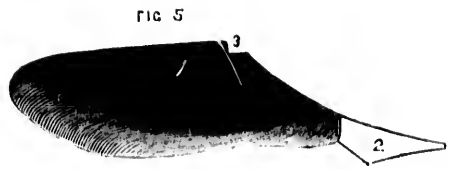


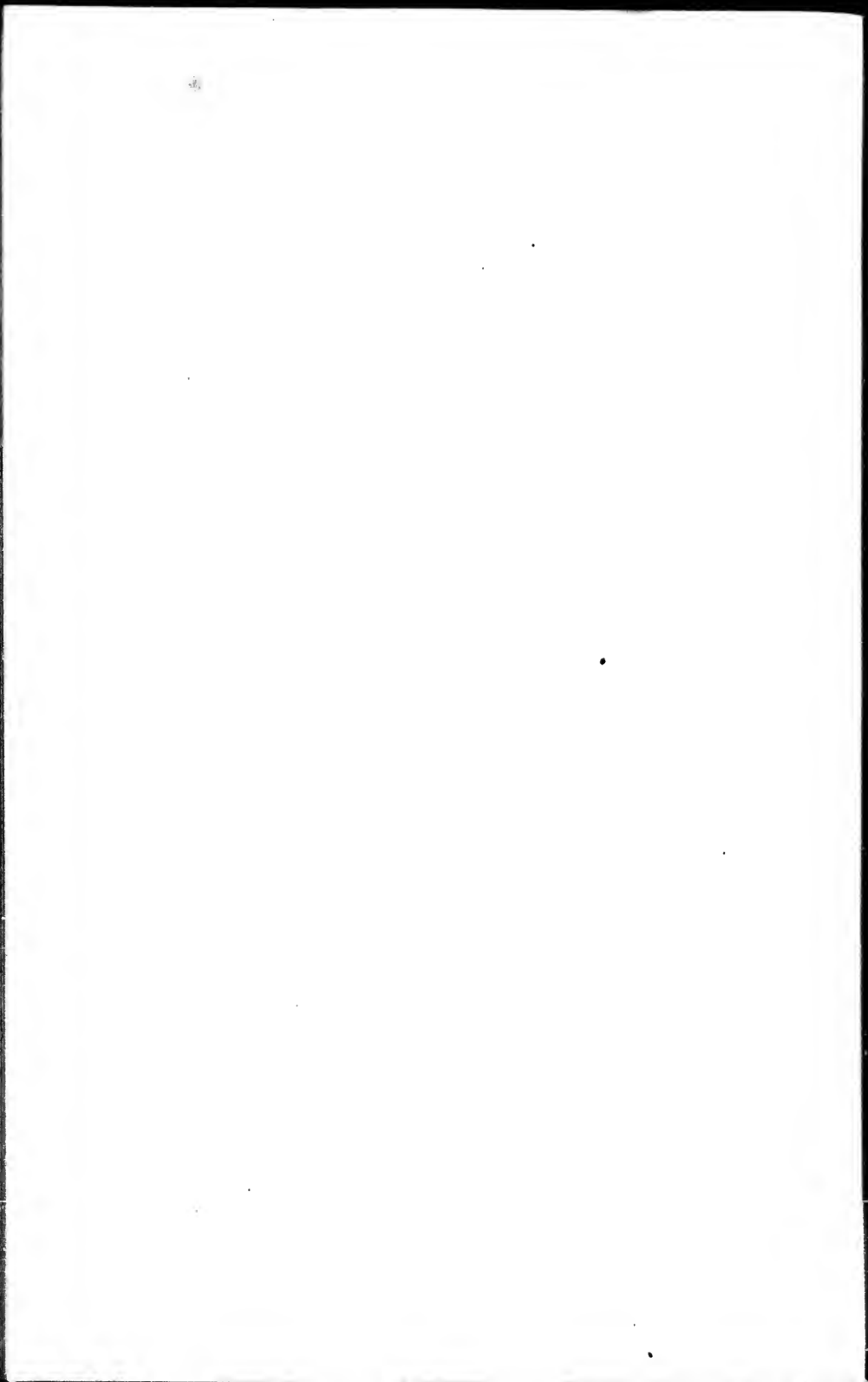
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430—Buchanan's apparatus for desiccating lumber, &c.



431—Modeland's improvements in the construction of Ploughs.

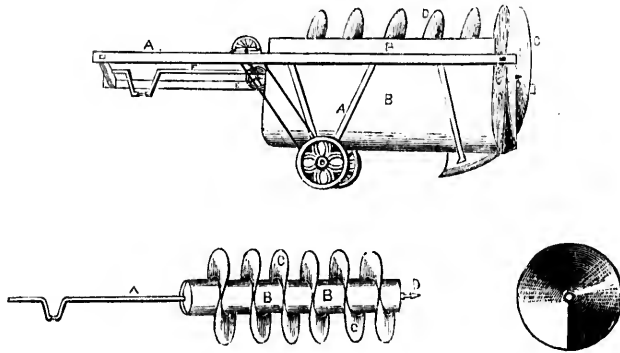




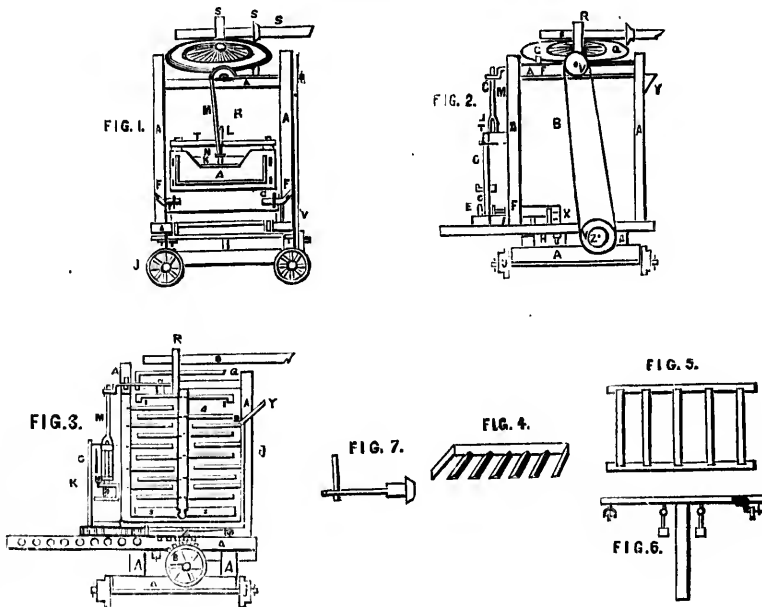
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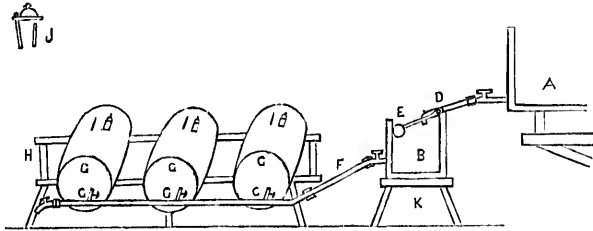
432—Stephens' improved Excavator.



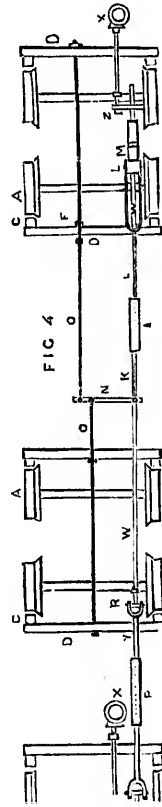
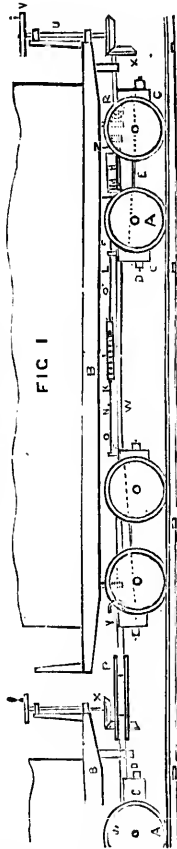
433—Parsons' improved Machine for making Bricks.



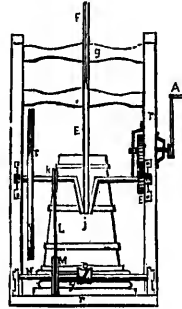
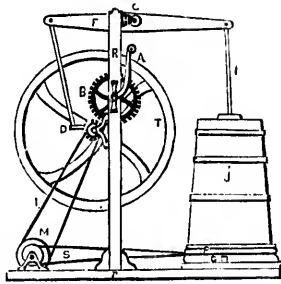
434—Parsons' Apparatus for cleansing or drawing off Beer, &c.



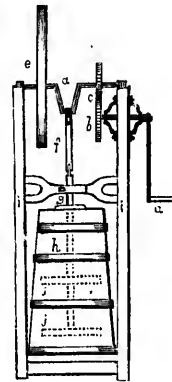
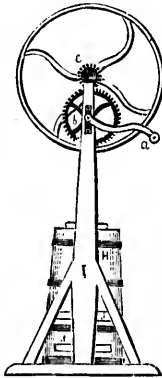
435—Cragford's improved machinery for arresting the progress of Railway Trains.

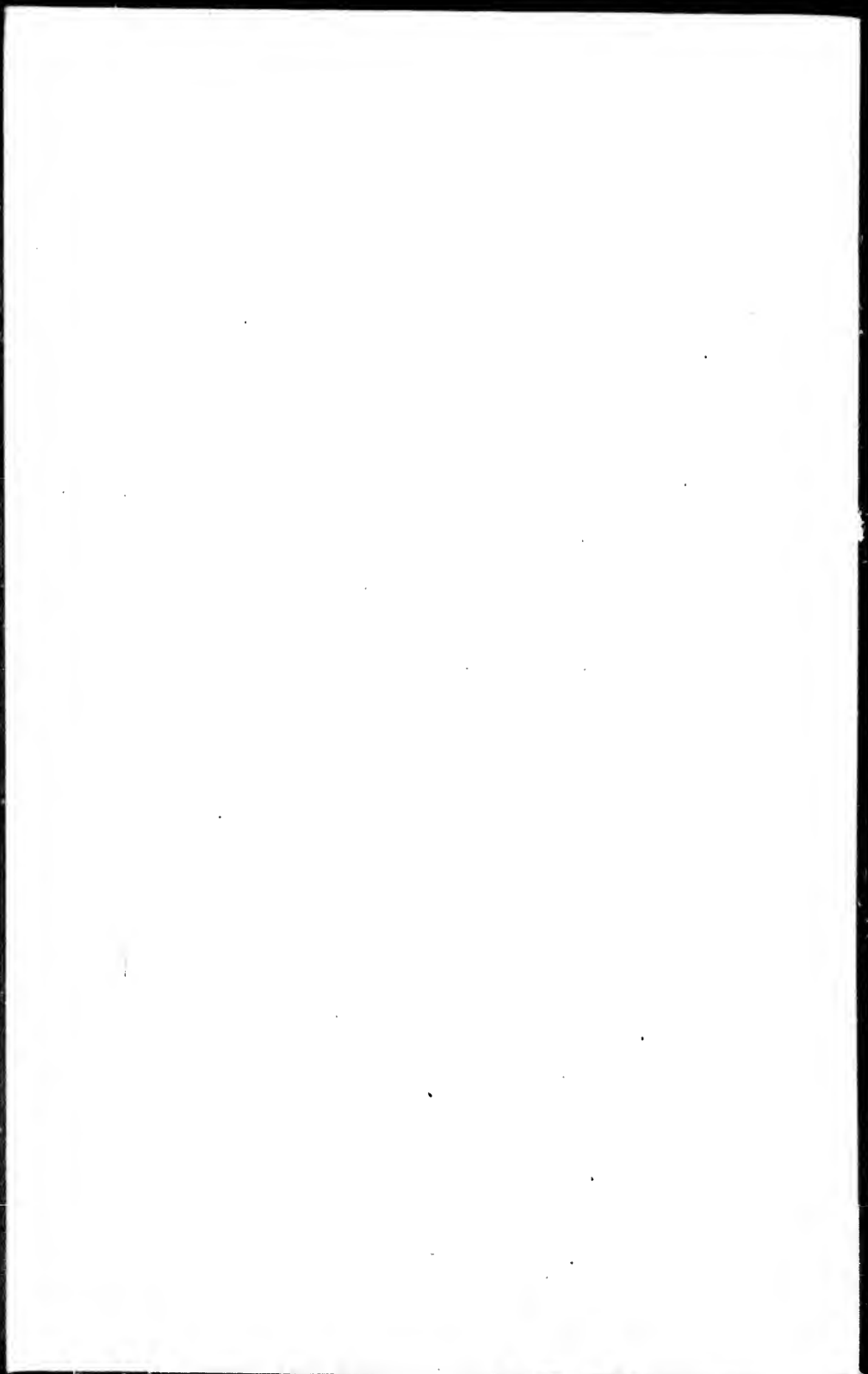


436—*Wood's improvement in the mode of constructing Churns.*

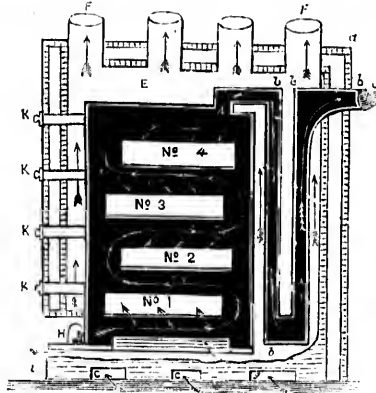


437—*Amsbary's improvement in the construction of Churns.*

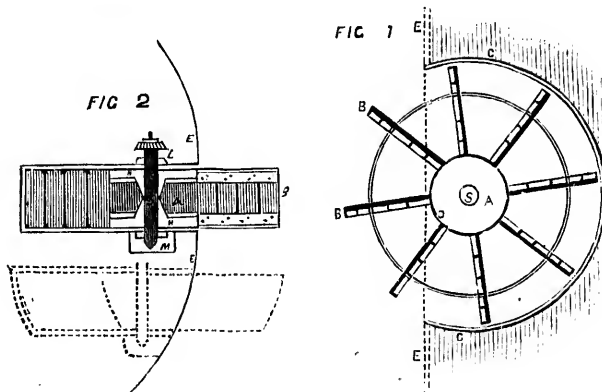




438—*Kwasneski's Prize Hot Air and Cooking Furnace.*



439—*Dunham's improved method for running Paddle Wheels.*





440—Forbes' improved Elevating Bedstead.

FIG 1

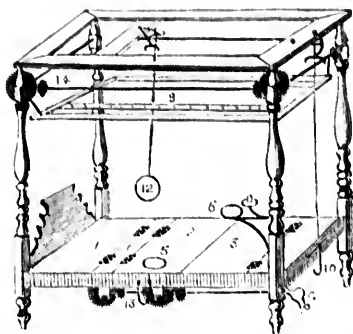
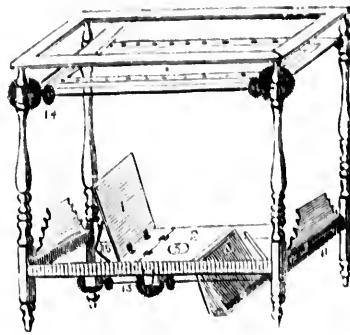


FIG 2



443—Winer's Pyro-Pneumatic Fire Grate.

FIG 1

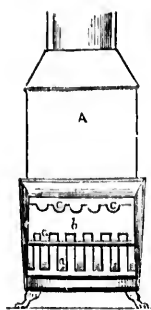


FIG 2

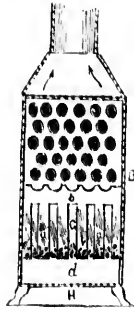
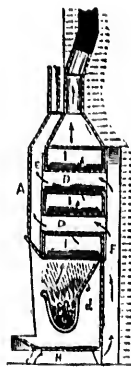
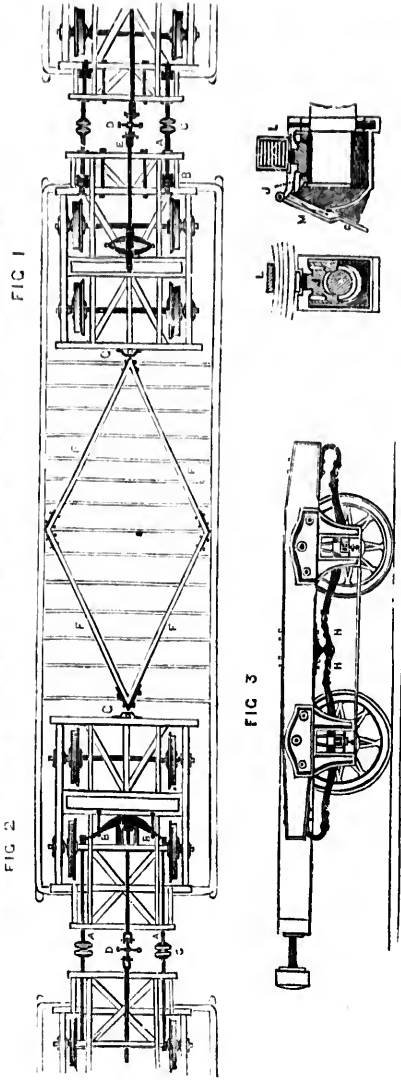


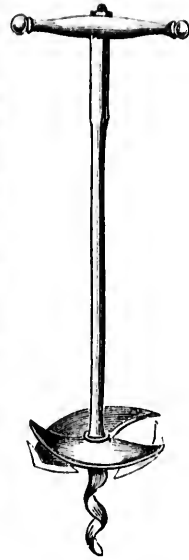
FIG 3



441—*Bouman's improvements in Railway Cars and Carriages.*

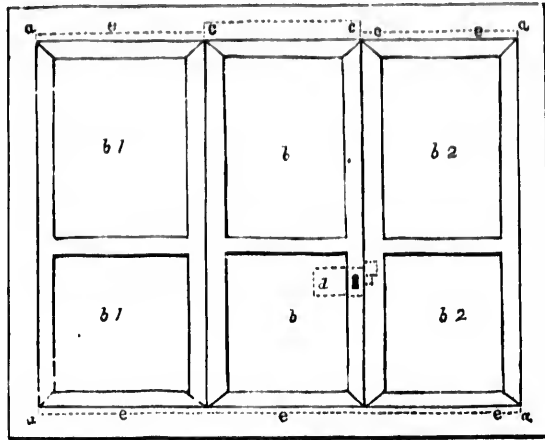


442—*St. Jacques' improvement in the construction of Post Augers.*

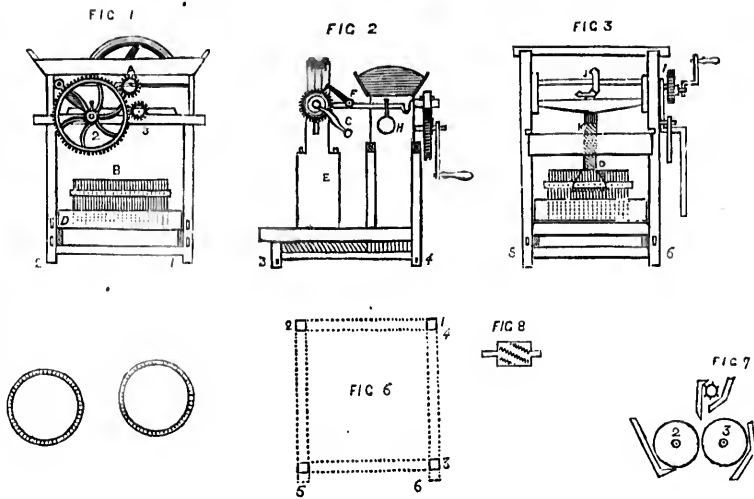




444—*Cole's Method of Closing Shop Window Shutters.*

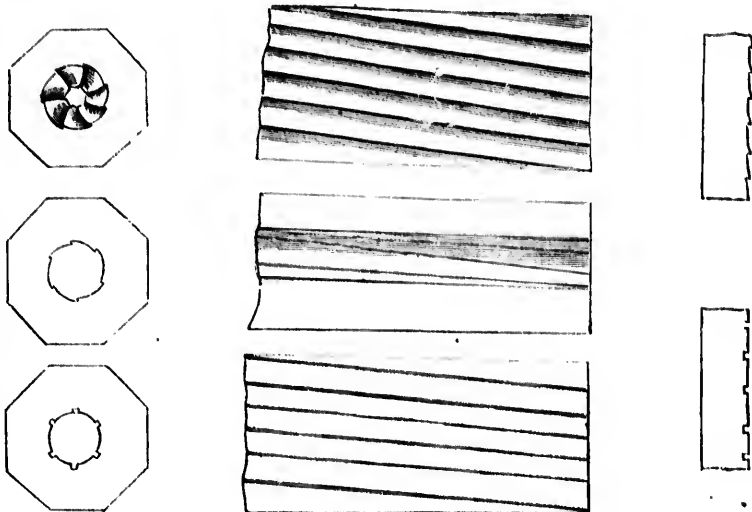


445—*Scovell's Cider Mill and Press.*

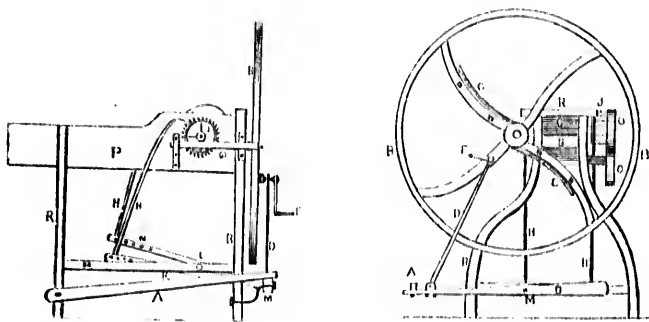




446—*Soper's improvement in the Grooving and Inside Finish of Rifle Barrels.*

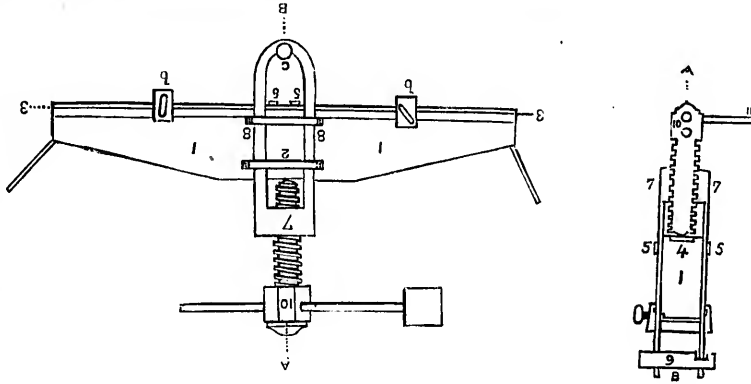


447—*Reese's improved machine for Cutting Hay and Straw.*

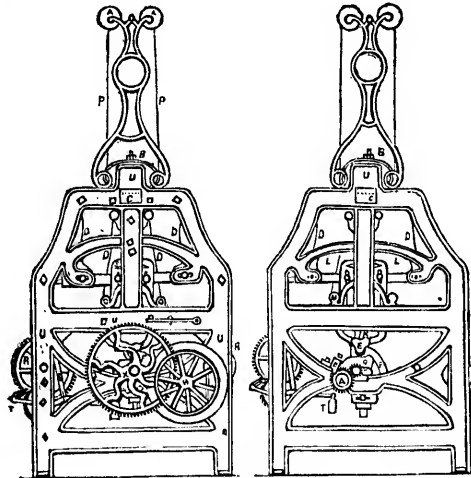




448—Williston's improved machine for straightening or curving Rails.

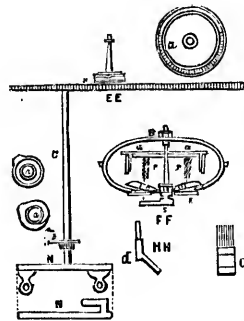
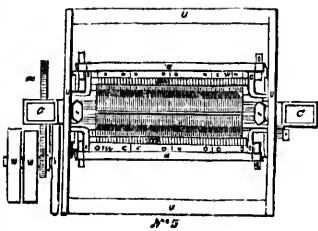
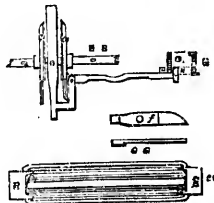
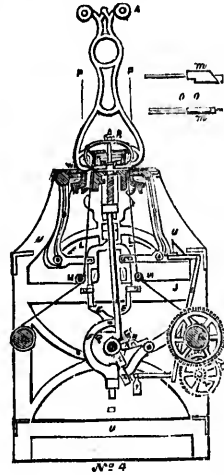
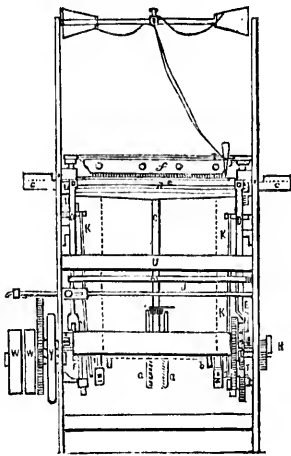


450—Lee's Double Acting Knitting Machine.

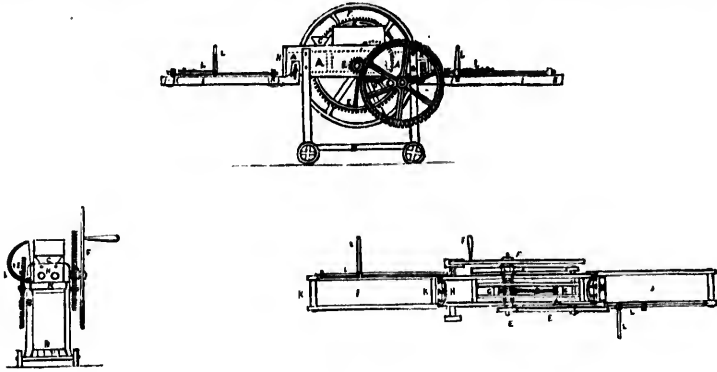




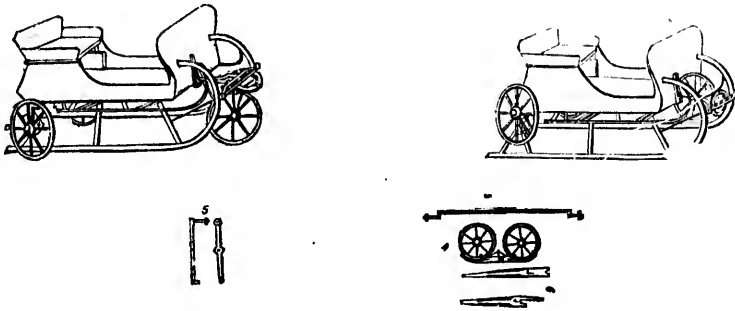
450—*Lee's Double Acting Knitting Machine.*—(Continued).



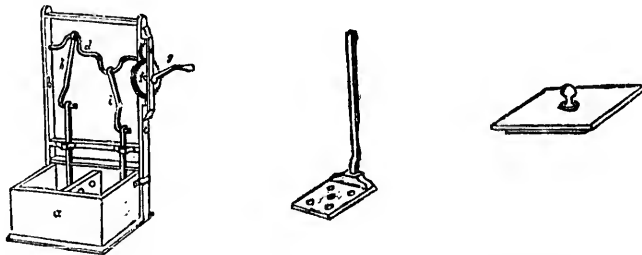
451—*Charnocks machine for moulding Tiles, Pipes, and Bricks.*



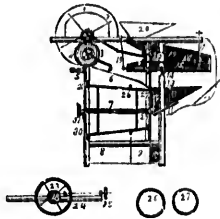
452—*Murdoch's Compound Carriage.*



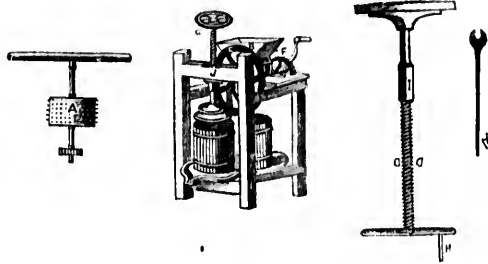
453—*Murdoch's Double Dash Church.*



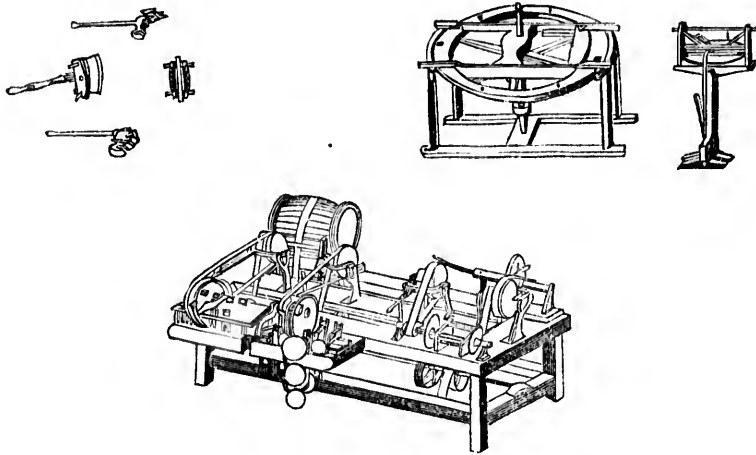
454—*Lossing's Rolling Screen Fanning Mill.*



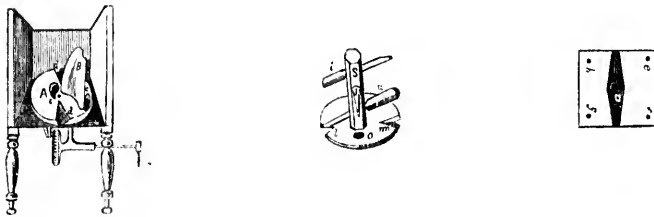
456—*Howell's Cider Mill and Press.*



457—*Wait's machinery for making Barrels, Tubs, Kegs, &c.*



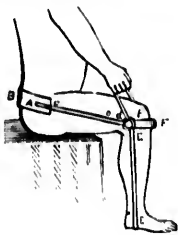
458—*Selleck's improvement in Churns.*



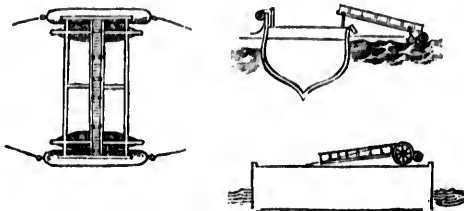
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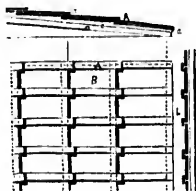
459—*Hoyt's improved Obstetrical supporter.*



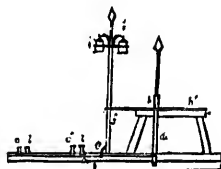
461—*Chatterton's Floating Gangway, &c.*



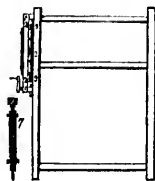
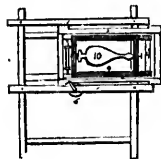
463—*Scobell's improved method of slating roofs.*



464—*Huckett's improved Signal Light for Railways.*

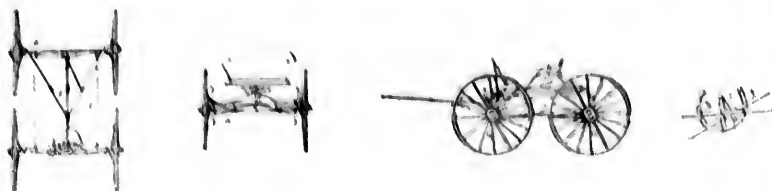


465—*Muchall's machine for working Irregular Surfaces.*

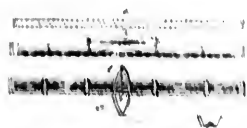


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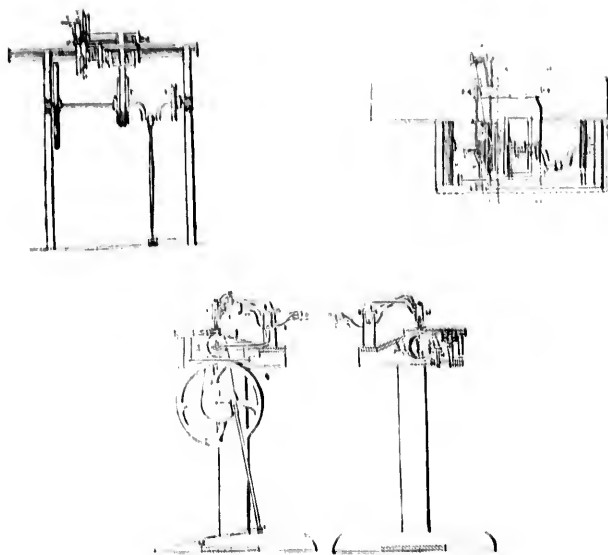
106—Margstroy's improvements on Carriages.



107—Reynolds's Seed Sower.



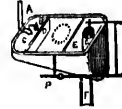
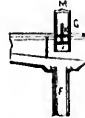
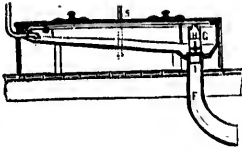
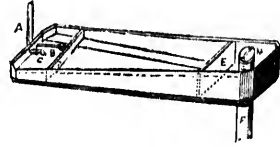
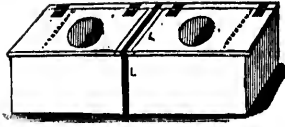
108—Porter's Sewing Machine.



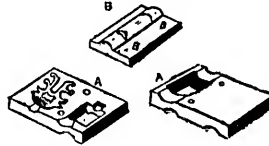
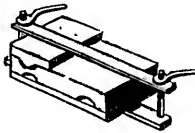
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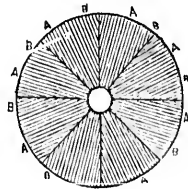
469—*Pye's Water Closets.*

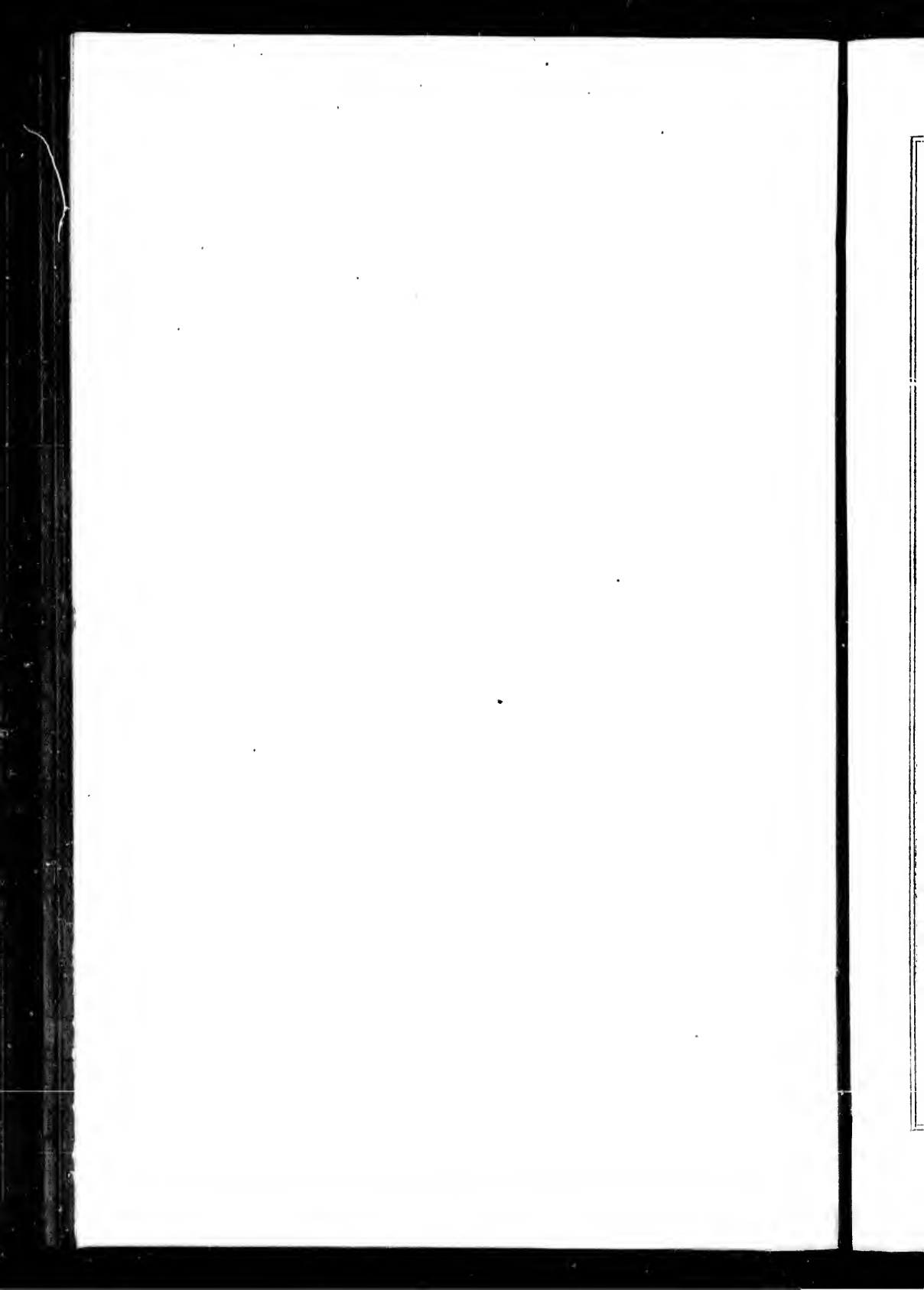


471—*Egan's Moulds for Copper, Brass and Composition Castings.*

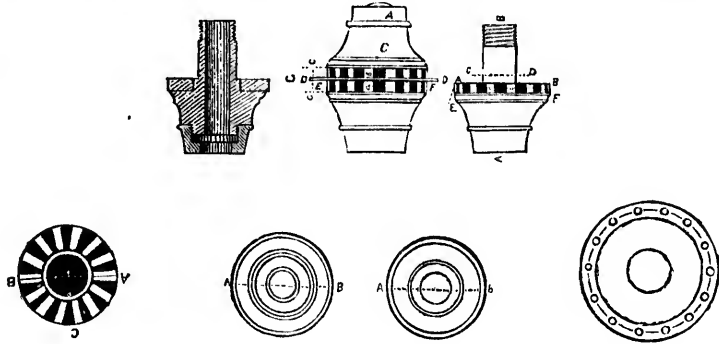


472—*Gatiss' Apparatus for Scouring Wheat, Rye, and Buckwheat.*

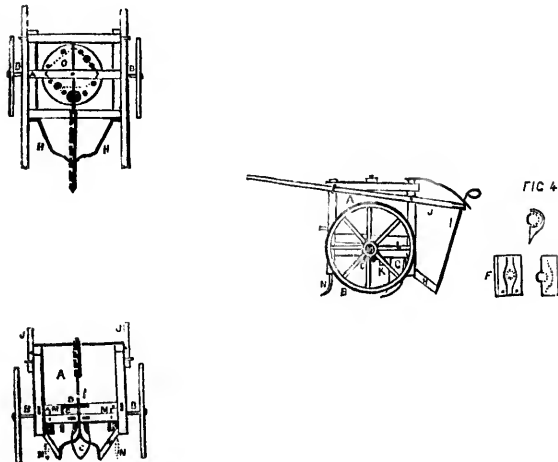


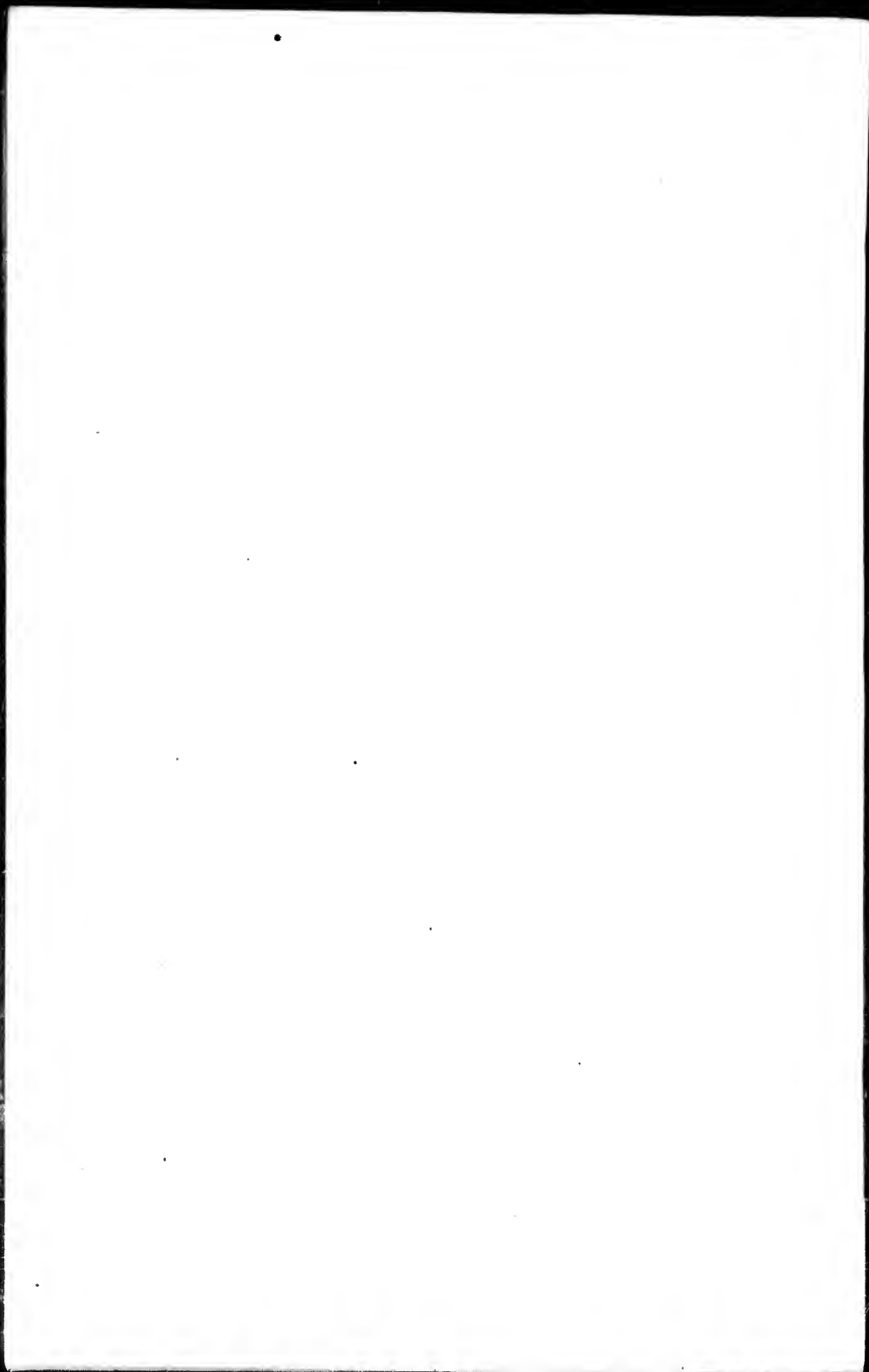


473—Hayden's improved Hub for Waggon and Carriage Wheels.

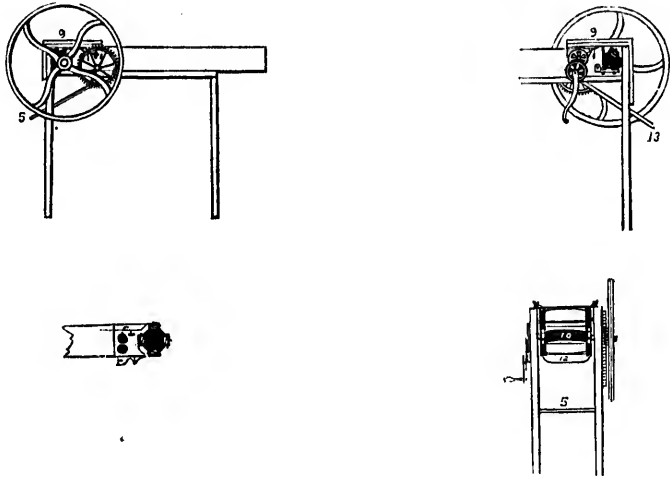


474—Nixon's Potato and Seed Drill.

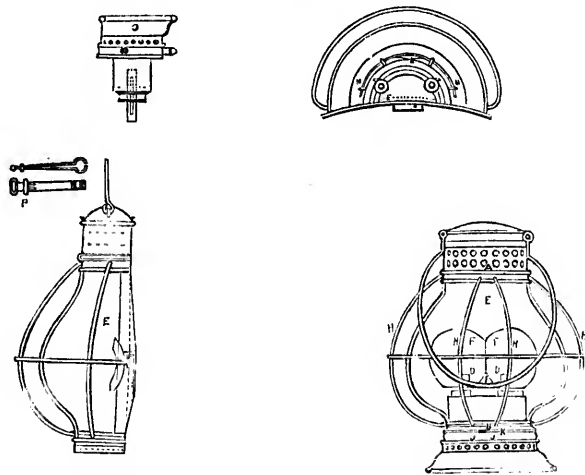




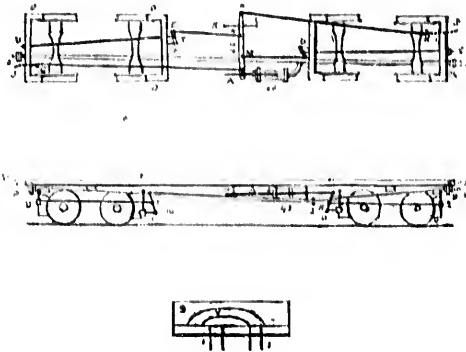
475—*Brown's improved Straw Cutter.*



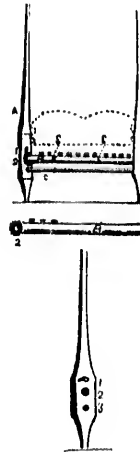
476—*Carpenter's improved Lantern.*



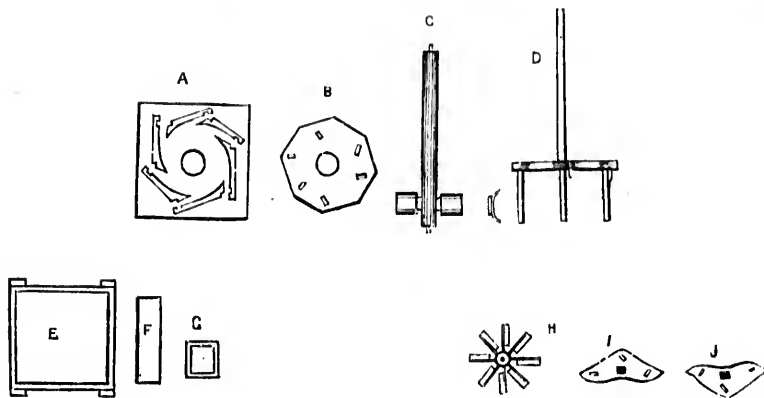
477—*Miller's Machine for arresting the progress of Railway Cars.*



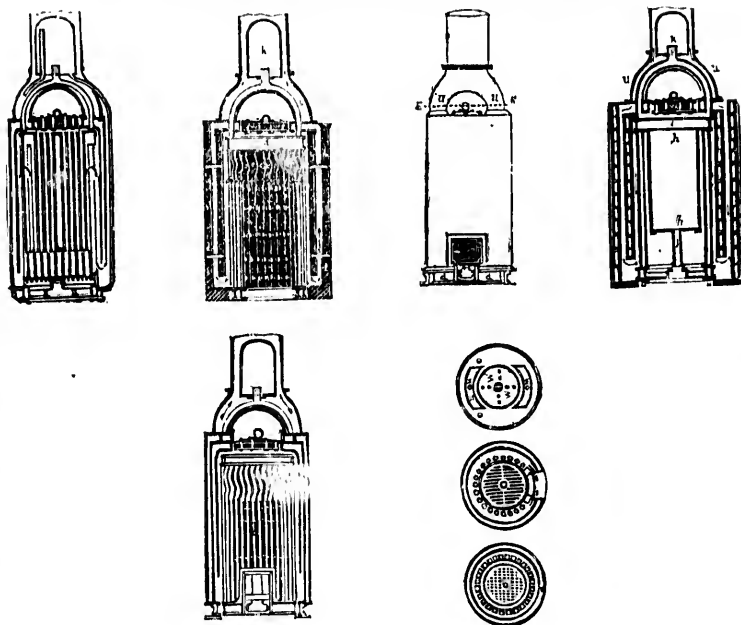
478—*Stephens' improved Bedstead.*



479—*Gatiss' Central Discharge Water Wheel.*

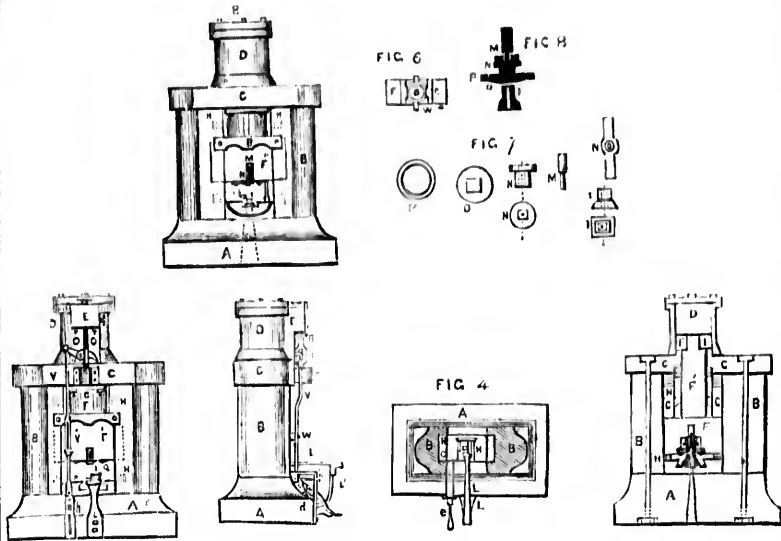


481—*Romaine's improved Agricultural Machinery.*

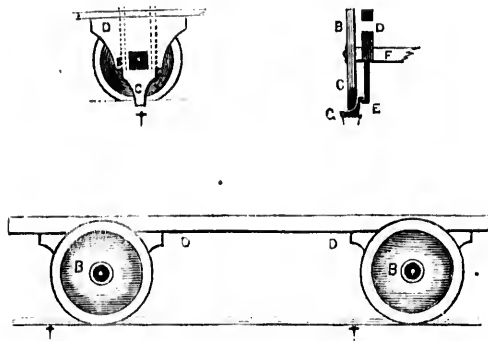




482—*Waterous' machine for making Nuts and Washers.*

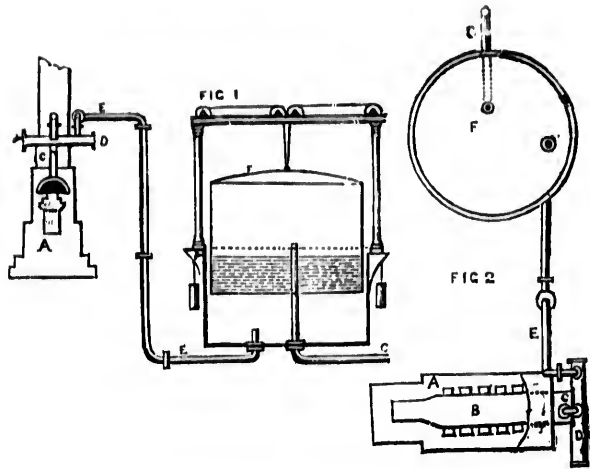


483—*Du Berger's Safety Hook.*

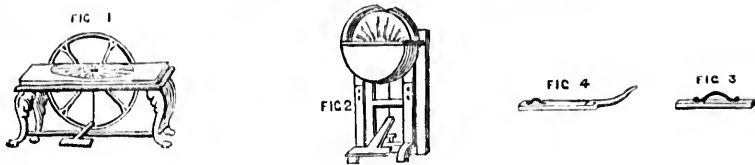




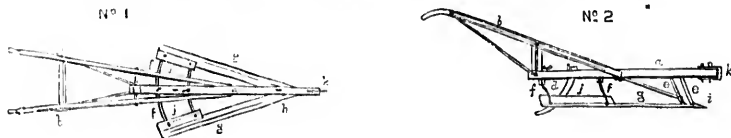
484—Cutter's method of making Gas.

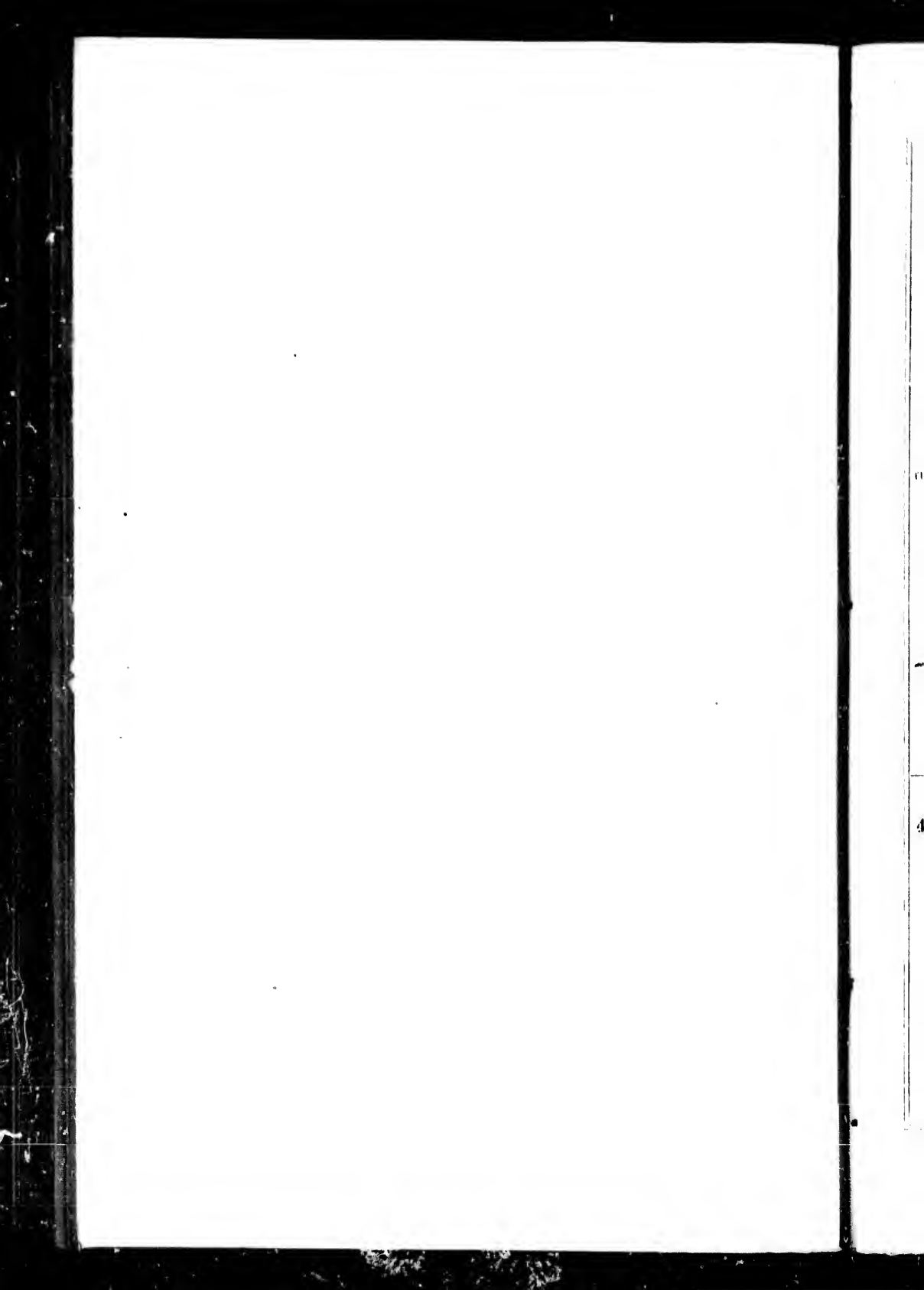


485—Lemire's Wheel or Hand Buff.

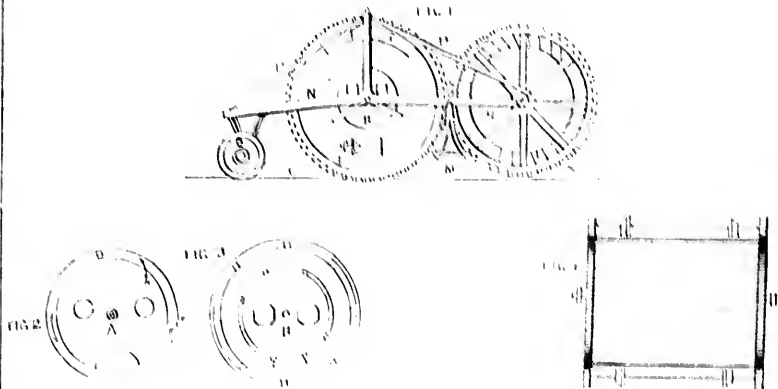


486—Lounsbury & Lyons' Canadian Thistle Killer.

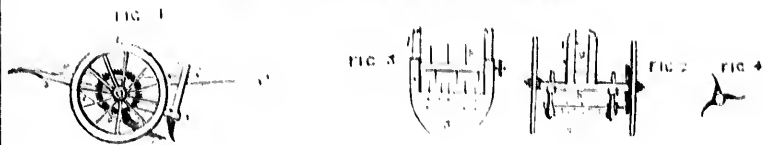




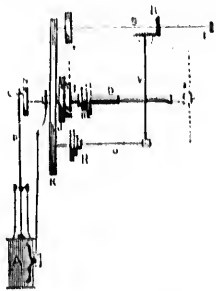
487—*Thomas' Snow Exterminator.*



488—*Anderson's Potato Digger.*



489—*Smith's improvement in Stationary Steam or Water Saw Mills.*



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