

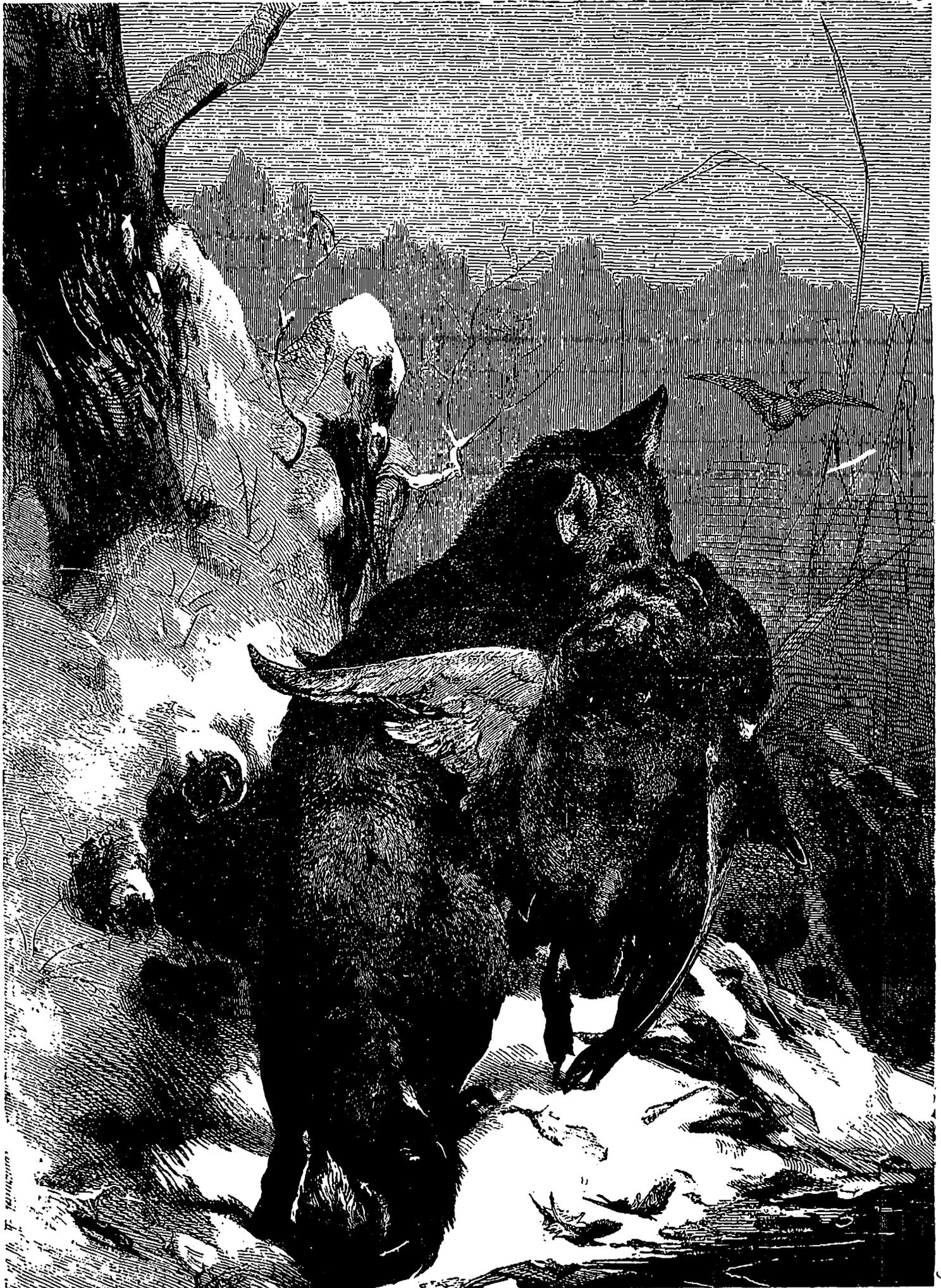
• Massey's Illustrated •

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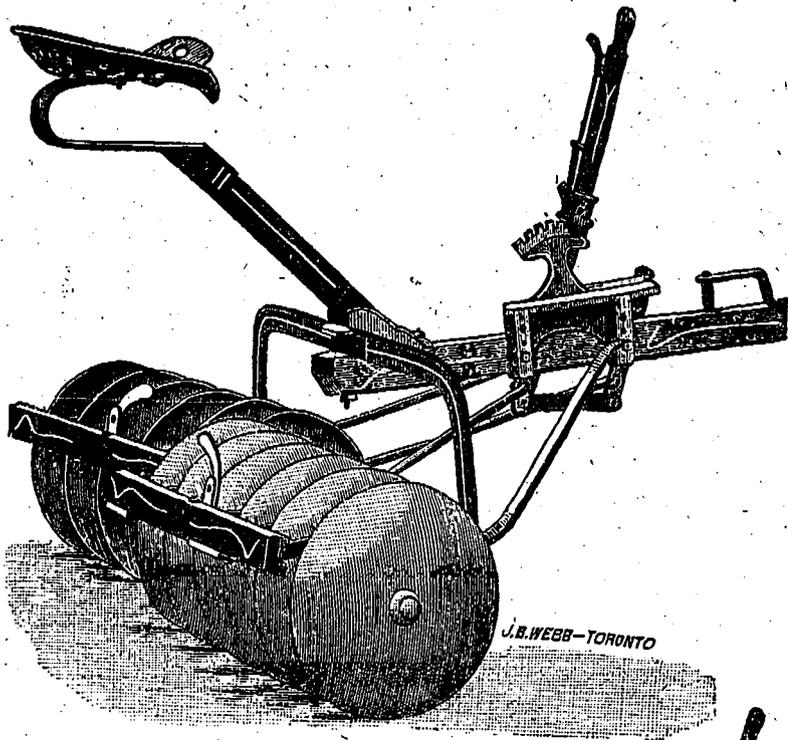
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Toronto, March, 1894.



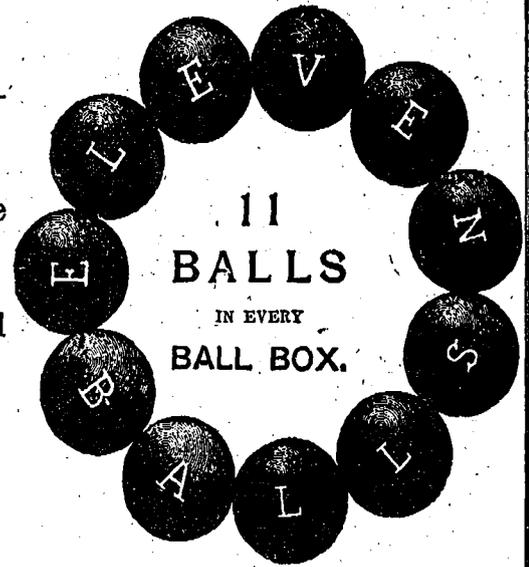
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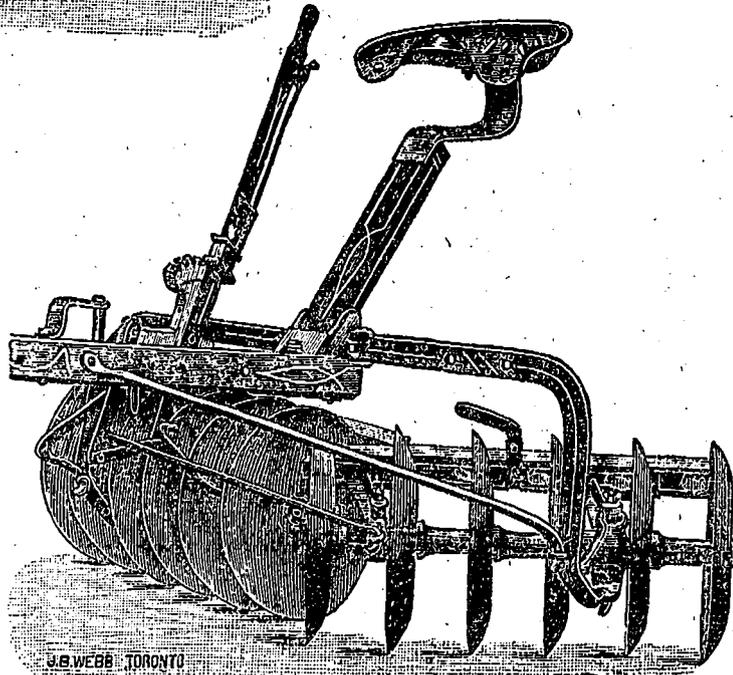
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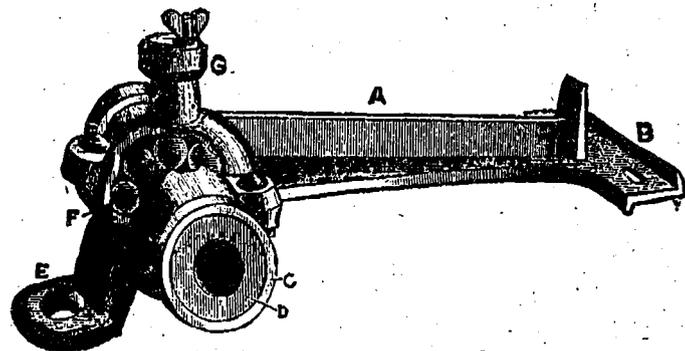
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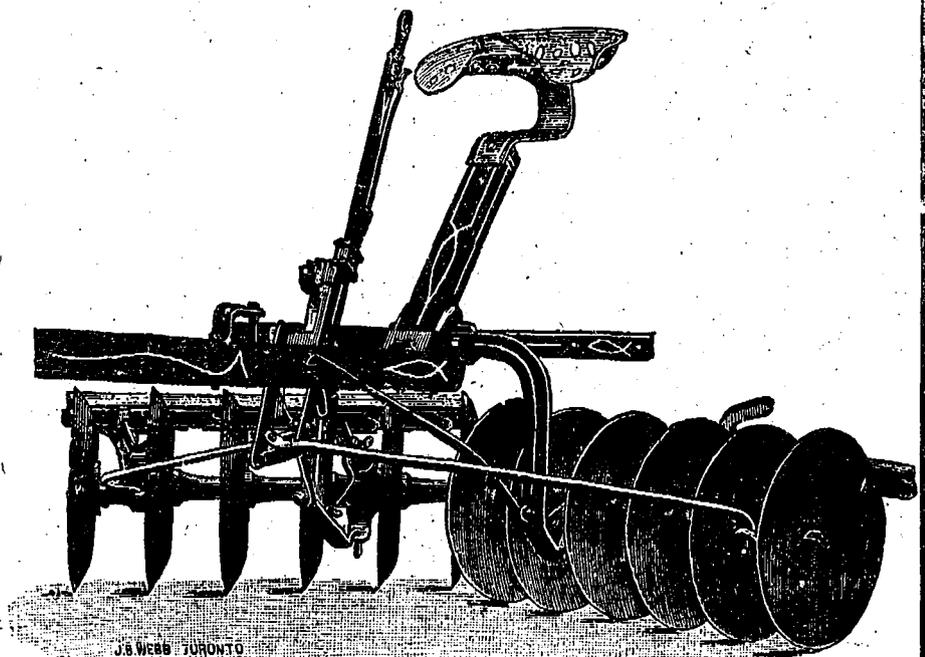
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(PUBLISHED MONTHLY.)

A Journal of News and Literature for Royal Homes

NEW SERIES.]

TORONTO, CANADA, MARCH, 1894.

[VOL. 6, No. 3.

Chili and the Chillano.

YING like a broad band of ribbon between the Andes and the shores of the South Pacific is the Republic of Chili. Its extreme length is about 500 miles with an average breadth of about 100 miles. Its aggregate area is estimated at 257,000 square miles. Its population is in the neighborhood of 3,000,000. Agriculture and mining are the principal occupations. In the rainless, arid north are situated the famed mines of nitrate of soda. There are about 1500 miles of railway now open.

Valparaiso, the chief city, is the finest port on the west coast of South America. The harbor is spacious and beautiful, and perfectly safe for shipping the greater part of the year. In this harbor, drawn up in lines like men-of-war ready for review, are hundreds of vessels, bearing the flags of almost every nation on the earth, but the United States. Trade is practically controlled by the English, all commercial transactions are calculated in pounds sterling, and the English language is almost exclusively spoken upon the streets. In fact this city is nothing more than an English colony.

Valparaiso means "The Vale of Paradise," but somehow or other there was a misconception in this particular, for there is no vale and no symptoms of paradise. An almost perpendicular mountain ridge forms a crescent around the city, towards the shores of which descend steep, rocky escarpments. Here and there watercourses have narrowed ravines, or *barancas*, as they are called, which offer the only means of reaching the outer world. Along the narrow strip of sand which lies between the sea and the cliffs, the city stretches three or four miles. The rocky cliffs have been terraced as the town has grown, and the city now extends back upon the hills a long distance, no man's house being above another's, and reached by stairways, winding roads, and steam "lifts," which carry passengers up inclined planes like that at Niagara. What roads there are were laid out by the goats that formerly fed upon the mountain sides, and these twist about in the most confusing fashion. One has to stop and pant

for breath as he climbs them, and an alpenstock is needed in coming down.

The oddest thing to be seen in Valparaiso is the female street car conductors. The experiment was first tried during the war with Peru, when all the able-bodied men were sent to the army, and the experiment proved so successful that their employment became permanent, to the advantage of the companies, the women, and the public. The street cars are double deckers, with seats upon the roof as well as within. It seems novel to a stranger to see a woman with a bill punch taking up fares.

Street-car riding is a popular amusement with

the young men of the city. Those who make a business of flirting with the conductors are called "mosquitoes" in local parlance, because they swam so thickly around the cars.

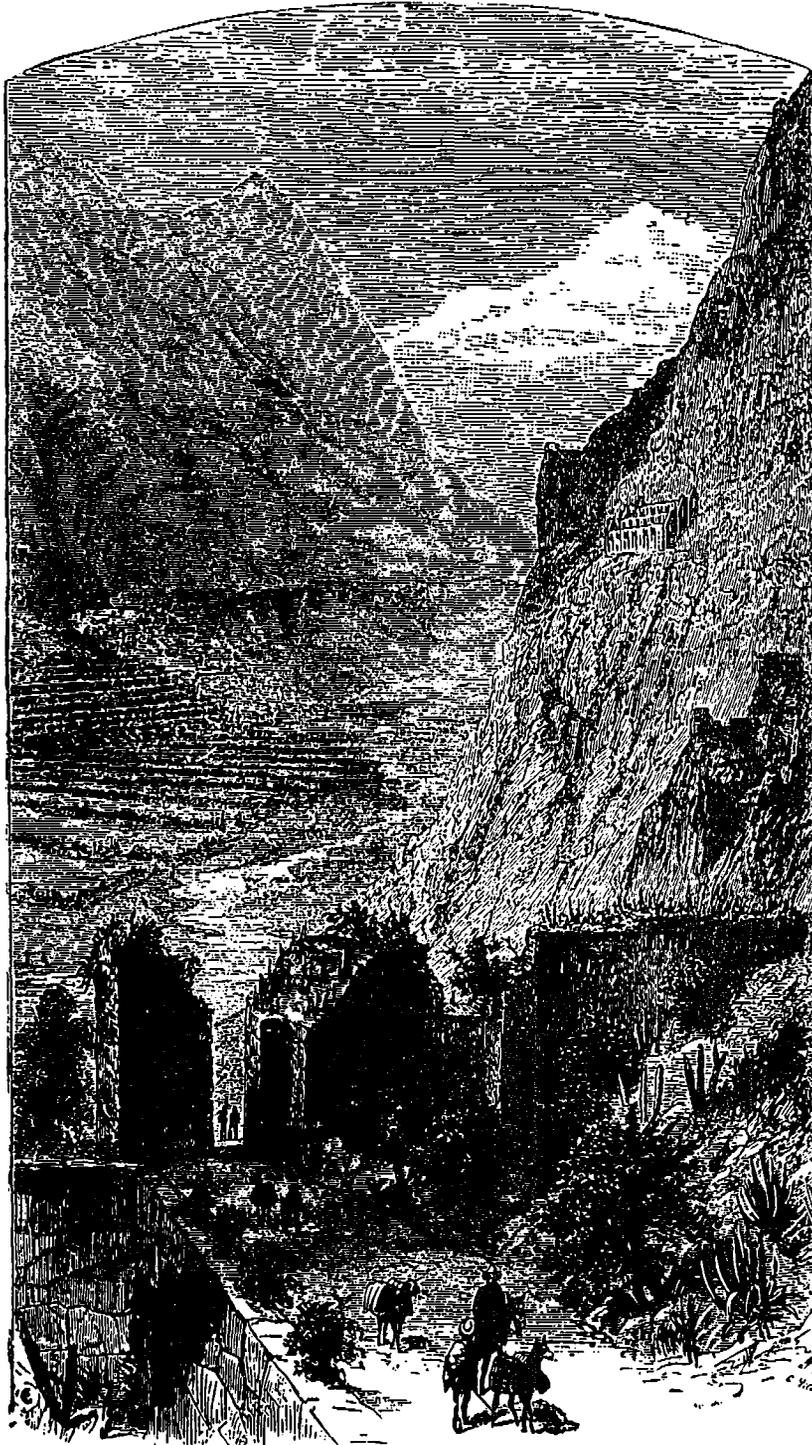
The conductors, or conductresses, are usually young and sometimes quite pretty, being commonly of the mixed race—of Spanish and Indian blood. They wear a neat uniform of blue flannel, with a jaunty panama hat and a many pocketed white pinafore.

The women of Chili are not so pretty as their sisters in Peru. They are generally larger in feature and figure, and have not the dainty feet and supple grace of the Lima belles. Here modern costumes are worn more generally than in other South American countries, and the shops are full of Paris bonnets and dress ware.

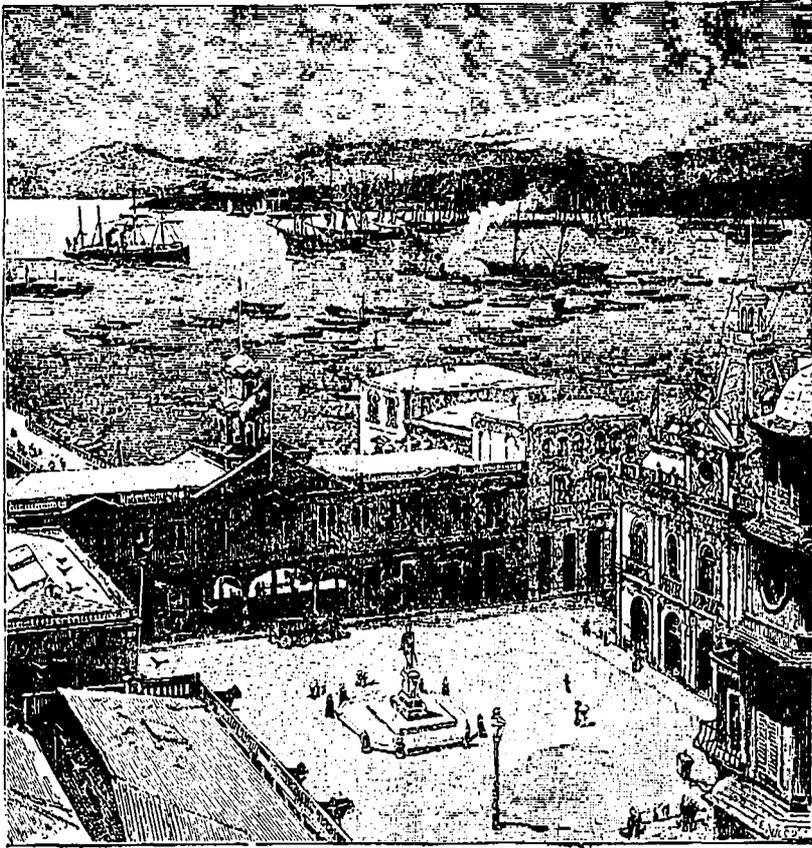
But the black manta, with its fringe of lace, is still common enough to be considered the costume of the country, and is always worn to mass in the morning. The manta is becoming to almost everybody. It hides the defects of homely forms and figures, and heightens grace and beauty. It makes an old woman look young, a stout woman appears more slender under its graceful folds, and even a skeleton would look coquettish when wrapped in the richly embroidered manta.

The manta is of black China crape, is square in shape, and about two yards in size. It is folded so as to be triangular, and the centre of the fold is placed upon the forehead, where there is usually a bit of lace that hangs down to the eyes. One end of the manta falls down the front of the dress as far as the knees, while the other is thrown around the shoulders and fastened at the breast with an ornamental pin. Thus usually only the face is shown, and when a maiden wishes to disguise herself, she draws the manta up so as to cover her mouth and nose, and permit only her eyes to be seen.

There is a romantic story about the manta which explains the reason that it is always black. It is said that the custom of wearing the manta originated among the Incas, but that they wore colors until the assassination of Atahualpa, their king, by the Spaniards. Then every women in the great empire, which stretched from the



GATEWAY TO THE ANDES.



THE HARBOR OF VALPARAISO

Isthmus of Panama to the Straits of Magellan, abandoned colors and put on a black manta, and it has since been worn as perpetual mourning for the "last of the Incas." There is probably some truth in this story for in the graves of the Incas have been found female mummies with mantas of brilliant colors wrapped around them. It is also true that the natives, the peons of Peru and Ecuador, the descendants of the Incas, never wear anything but black, and still celebrate with impressive ceremonies the anniversary of the day on which Atahualpa was strangled.

Santiago, the capital, and one of the finest cities on the continent, is five hours' journey by railway from Valparaiso. The scenery along the line is picturesque, the snow-caps of the Andean peaks being constantly in view.

The people of Santiago have a notion that fires in their houses are unhealthy, and so there is nothing like a grate or a stove to be found in any but those of the European residents. The natives spend six months of the year in a perpetual shiver, and the other six in a perpetual perspiration. It looks rather odd to see civilized people sitting in a parlor surrounded by every possible luxury that wealth can bring (except fire) wrapped in furs and rugs, with blue noses and chattering teeth, when coal is cheap, and the mountains are covered with timber. It looks stranger to see in the streets men wearing fur caps and with their throats wrapped in heavy mufflers, while the women have nothing on their heads at all. During the morning while on the way from mass, or while shopping the women wear the manta, but in the afternoons, or when riding, they go bare-headed. Every lady seen on the street in the morning carries a prayer rug, often handsomely embroidered, which she kneels upon at mass, to protect her limbs from the damp stone floors of the churches, in which there are never any pews.

The Alameda is six hundred feet in width, broken by four rows of poplar trees, and

of half a mile or so, and the music calls out the population to walk or drive. During the summer the music is given in the evening.

"Santa Lucia" is a most beautiful place. It is a pile of rocks six hundred feet high, cast by some volcanic agency into the centre of the great plain on which Santiago stands. It was at the time of the Spanish Dominion, a magnificent fortress commanding the entire valley with its guns. Tradition has it that the Arancians had a stronghold here before the Spaniards came. Of late it has been made into a thing of beauty. Winding walks and stairways, parapets and balconies, grottoes and flower beds, groves of trees, and vine-hung arbors follow one another from the base to the summit; while upon the west, at the edge of a precipice eight hundred feet high, are a miniature castle and a lonely little chapel.

The Chillano is the Yankee of South America—the most active, enterprising, ingenious, and thrifty of the Spanish American race—aggressive, audacious and arrogant, quick to perceive, quick to resent, fierce in disposition, cold-blooded and cruel. He dreams of conquest. He has only a strip of country along the Pacific coast, so narrow that there is scarcely room enough to write its name upon the map, hemmed in on the one side by the eternal snows that crown the Cordilleras, and on the other side by six thousand miles of sea. He has been

stretches the full length of the city—four miles—in the centre is a promenade, while on either side is a drive-way one hundred feet wide. The promenade is dotted with a line of statues representing the famous men or commemorating the famous events in the history of Chili, a country which has assassinated or sent into exile some of her noblest sons, but never fails to perpetuate their memory in bronze or marble. On the Alameda every afternoon during the season several military bands are placed at intervals

stretching himself northward until he has taken all the sea-coast of Bolivia with its valuable nitrate deposits, all the guano that belonged to Peru. He has been reaching southward by diplomacy as he did northward by war, and under a recent treaty with the Argentine Republic he has divided Patagonia, with that republic, taking to himself the control of the Straits of Magellan and the unexplored country between the Andes and the ocean, with the thousands of islands along the Pacific coast whose resources are unknown.

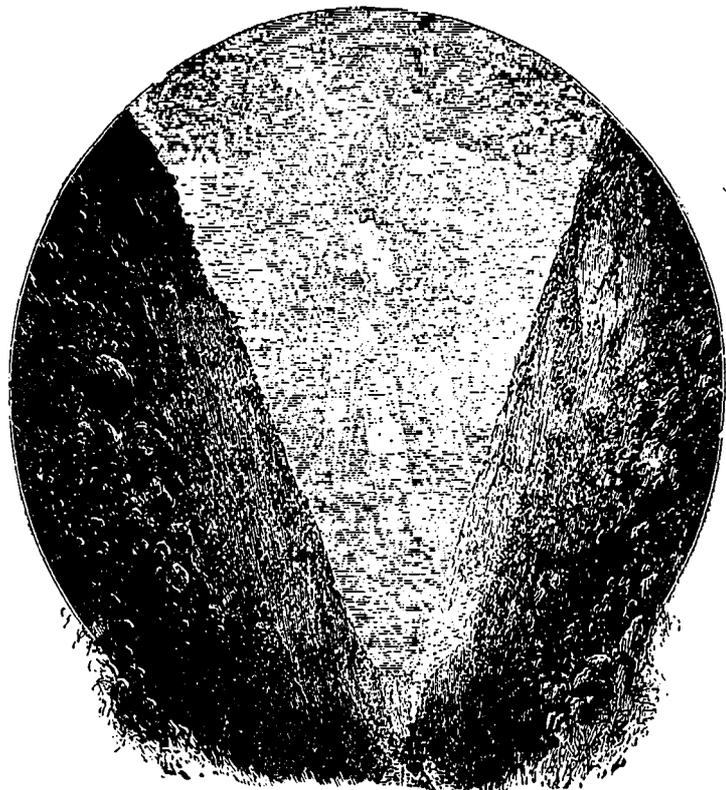
The Chillano is cruel—cruel as death. He carries a long, curved knife, called a *curvo*, and uses it to cut throats. He never fights with his fists; he never carries a revolver; but as a robber or bandit, in a private quarrel or a public mob, he always uses this deadly knife. There is scarcely a day without one or two throat-cutting incidents, and in the daily papers succeeding feast-days or carnivals, their bloody annals fill columns.

As a soldier the Chillano is brave to recklessness, and fear is unknown to him. He cannot be made to fight at long range; but as soon as he sees the enemy, he fires one volley, drops his gun, and rushes in with his *curvo*. His endurance is as great as his courage, and no North American Indian can travel so far without rest, or go so long without food and water as the Chillano peon, or *roto*, as the mixed race is called.

The *roto* in Chili is the descendant of the Spaniards and the Arancian Indians, the race of giants with which the early explorers reported that Patagonia was peopled—"Menne of that bigginess," as Sir Francis Drake re-



SANTA LUCIA.



THE HEART OF THE ANDES.

ported, "that it seemed the trees of the forests were uprooted and were moving away." They have the Spanish tenacity of purpose, the Indian endurance, and the cruelty of both.

Each soldier, in the mountains or the desert, carries on his breast two buckskin bags. In one are the leaves of the coco-plant, in the other powdered lime made of the ashes of potato skins. The coco is the strongest sort of a tonic, and by chewing it the Chillano soldier can abstain from food or drink for a week at a stretch. He takes a bunch of leaves as big as a quid of tobacco in his mouth, and occasionally mixes the potato ashes with the juice to give it a relish.

The Chillanos are also careless of machinery. While they are quick to learn, and have much native mechanical ingenuity, they cannot be trusted as machinists. For instance, on all the railways are heavy grades and dangerous curves, requiring the greatest care on the part of the engine drivers. The reckless Chillano thinks it great fun to run a train down a grade at full speed, and a collision is his delight. He enjoys seeing things smashed up, and knows nothing of the necessity of operating trains on schedule time. Consequently though the government owns and manages the railways the locomotive drivers are generally foreigners. Before a presidential election these are suspended and natives employed in their stead—then follows a carnival of accidents, and passenger travel is practically suspended till the foreigners are restored to their positions again.

In Chili women are employed not only as street car conductors, but they do all the street cleaning, and gangs of them with willow brooms, sweeping the dirt into the ditches can be seen by any one who has curiosity enough to get up at day-break. They occupy the markets, too, selling meats as well as vegetables. On the streets they keep fruit stands, and have canvas awnings under which you can sit and eat watermelons, a favorite fruit in Chili. Outside of the cities the women keep the shops and the drinking places, and do all the garden work.

The laundry work is done at the public fountains; but the washer-women of Chili do not go almost naked, as some of their neighbors do.

The native Peruvian, the descendant of the ancient Incas, has learned almost nothing since the conquest, and has forgotten most of the arts his fathers knew, among them the process of rendering copper as hard as steel. The secret process is lost and the ingenuity and knowledge of the modern chemist cannot discover it.

Protestantism is making rapid progress in Chili. There are several missions under the care of the Presbyterian Board of the United States, and a number of self-supporting churches and schools.

The costume of the peasants is chiefly conspicuous by its absence in the summer

garden patches around them which are occupied by the tenants, and in payment for which the landlord is entitled to so many days' labor. Should more labor than is due be required of the tenant, he is paid for it, not in money, but in orders upon the supply store of the estate, where he can get clothing or food or rum—especially rum. Tenants are usually given small credits at these stores, and are kept in debt to the landlords. As the law prohibits them from leaving a landlord to whom they are in debt, the poor are kept in continual slavery, like the fabled one in mythology who was always rolling a stone uphill.

Everybody goes on horseback—even the beggars ride. Horses are seldom broken to harness—all the teaming being done with oxen. The gear of the Chili saddle horse is a most curious and complicated affair and weighs about five pounds—being sufficiently powerful to break a horse's jaw if suddenly jerked. The reins are of fine plaited hide or horse-hair, and are joined together when they reach the pommel of the saddle, terminating in a long lash called a *chivote*.

The Chili saddle is even more complicated than the bridle. First, six or seven sheepskins

season. When President Barrios of Guatemala, issued a decree that peons should wear clothing the country narrowly escaped a revolution; but policemen were stationed on all the roads leading into the city, and confiscated all the cargoes borne by those who did not comply with the regulations and put on a shirt or a *guipil*. The peons pleaded poverty and to avoid a possible outbreak and bloodshed, the government furnished the cloth to make the garments.

Their dress now consists of short trousers, like bathing-trunks, and a white cotton shirt. The shirt is kept for occasions of ceremony, and is worn only in town. While on the road they are naked except for the trunks.

Farming in Chili is conducted on the old feudal system. The country is divided into great estates owned by people who live in the cities and seldom visit their haciendas. There are only two classes outside the cities—the landlords and the tenants. On each estate are a number of cottages with



ON THE ROAD TO THE MOUNTAINS.



OVER THE ANDES.

are placed upon the horse's back, one on top of the other; a leather strap is passed around them and firmly secured; a piece of wood cut to the shape of a saddle tree, with a cantle at each end, comes next, and on top of this any number of sheepskins; or, if the owner is rich, rare furs furnish a seat, which is called the *montura*. The four corners are fastened down by broad leather straps, to enable the rider to wedge himself in, and the whole is bound around the horse's belly with a broad band of leather or canvas.

The stirrups of the ordinary citizen are made of two huge pieces of wood—usually oak—with a hole cut through for the foot, and often weigh as much as four or five pounds each.

The traveller who wishes to make the journey from the Chilian to the Argentine Republic and the east coast of South America has a choice of routes. He may go by sea around through the Strait of Magellan. He may climb over the Andes on the back of a mule, a journey of five days, three of which are spent in the saddle amid some of the grandest scenery in the world.

From Santiago there is a government railway as far as the town of Santa Rosa, which passes around the base of Aconcagua, the highest mountain in the western hemisphere, and furnishes the traveller with a most sublime panorama of mountain scenery. There mules and men are hired for the ride over the Cumbre Pass to Mendoza, on the eastern slope of the Andes, from which a railroad runs to Buenos Ayres.

The opening of this railroad has caused the trade of Bolivia to be diverted to the Atlantic, and the extension of the line to the northward will make Buenos Ayres and other cities on the

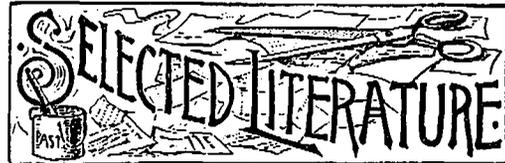
river La Plata the *entrepots* for Bolivian commerce. One great difficulty, however, lies in the fact that from April to November the mountain passes are blockaded with snow, and it is always dangerous and often impossible to make the journey. Native couriers, who use snow shoes, and find refuge in the "casuchas" or hollows of the rocks, during storms, cross them the year round, carrying the mails. Sometimes, indeed often, they perish from exposure or starvation, or perhaps are buried under avalanches. The passes are about thirteen thousand feet high and are swept by wind that human endurance cannot survive. During the summer the journey is delightful, and though attended by many discomforts, has its compensations to those who are willing to rough it, and who are fond of mountain scenery.

Not long since a party of thirteen school-ma'ams from the United States, who are teachers under contract with the Argentine government, crossed the mountains to Chili and had a "lovely time". Plenty of mules and good guides can be secured at the termini of the railways, but travellers have to carry their own food and bedding. There are no hotels on the way, but only "schacks" or log houses, which furnish nothing but shelter.

The road over the mountains is dangerous in many places, clinging as it does to the edge of mighty precipices and upon the sides of mountain cliffs, and only trained mules can be used. During the winter season the winds are often so strong as to blow the mules with their burdens over the precipices, and leave them as food for the condors that are always soaring around. These birds know the dangerous passes, and keep watch with the expectation of seeing some traveller or mule go tumbling over the cliffs.

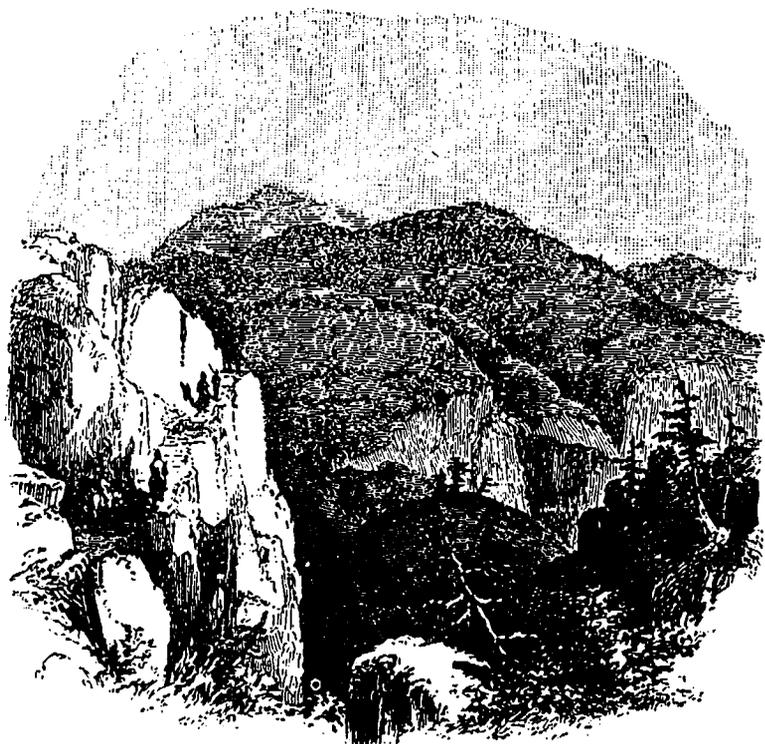
Cowhide bridges, the construction of which is not satisfactory to nervous men, stretch across the ravines after the manner of modern suspension bridges, and a floor, or path, made of the branches of trees lashed together with hides, and just wide enough for a mule to pass, is laid. The oscillation of these bridges is very great, and a man subject to giddiness will want to lie down before he is half way over. It is remarkable that so few accidents happen, and when they do occur, it is usually because a traveller is reckless, or a mule is green.

The whole route is historical, as it has been in use for centuries. There is scarcely a mile without some romantic association, not a rock without its incident and tradition; incident and romance line the path from end to end. The Incas used the path before the Spaniards conquered the country, and Don Diego de Almagro crossed it in 1535 as he passed southward to Chili after the conquest of Peru.



The Maple-Sugar Industry of Vermont.

EVAPORATION of the sap of the rock or sugar maple, for use as an article of diet, has been practised by denizens of the north temperate zone from time immemorial. The North American Indian, long before the discovery of the continent by Europeans, hacked the maple with his stone hatchet, and guided the trickling sap in spouts of bark into a sort of rude tank made from a log hollowed out by fire and scraped with sharp stones. By putting heated stones into his tank of sap, the Indian was enabled to produce a substance which was undoubtedly nectar to the benighted savage, but which would seem like tar when compared with the amber-colored syrup from one of our modern sap evaporators. The Europeans brought with them kettles of iron and brass, and in these they slowly and with infinite waste of labor and fuel, reduced the maple sap to molasses and sugar. Iron kettles were used for over fifty years, when they were superseded by large, shallow, rectangular pans of sheet iron, which were set in arches of brick or stone, and gave a wonderful impetus to the sugar-making industry. Soon after the pan came the "heater," a sort of boiler made of tin, with flues through the lower part, through which the fire was made to pass on its way to the chimney. By this arrangement a stream of cold sap was continually running into the heater from the store tubs, and a corresponding stream of boiling hot sap flowing from the heater into the pan; Thus the boiling of the sap in the pan was not retarded by the turning in of cold sap. By the pan and heater process a most excellent product was obtained, and many sugar makers still make use of apparatus of this kind; but the still more modern sap evaporator has found its way into nearly every large sugar orchard in the country. The evaporator is made of tin, copper, or galvanized iron, and is so constructed that the sap flows in at one end and, by means of partitions extending nearly across the pan, is made to take a zigzag course to the other end, where it is drawn off as syrup. The sap in the pan is kept shallow—about one-half inch in depth—and evaporates very rapidly. Rapidity of



ROAD CUT IN THE ROCKS.

evaporation is greatly to be desired, not only on the score of economy of time, but because the sooner sap is converted into syrup after it runs from the tree the lighter will be the color and the finer the flavor of the syrup and sugar.

The season of maple sugar making is in the early spring, opening usually about March 10th, and continuing three or four weeks, according to the weather. Sap will run only when the temperature is at least thirty-two degrees F., and stops flowing as soon as frost is out of the ground, or directly after the snow is gone. As soon as the weather is favorable the maples are tapped by boring the stems with a small bit—usually half-inch—about one and one-half inches deep, and from one to three feet above the ground. Trees are not tapped until they are about one foot in diameter. After tapping, a spout made of clean maple, beech, t.n. or galvanized iron, and fitted with a hanger for holding the bucket, is driven firmly into the hole made by the bit; a bucket of wood or tin is hung upon the spout, and the tapping process is finished. Only one hole is bored in young trees, but I have seen as many as half a dozen buckets, with two spouts each, hung to maples of large size. If the bucket fills with sap in a day the run is a good one, although twice this amount is often obtained in exceptionally favorable sap days.

A barrel of good sap will make a gallon of syrup or eight pounds of sugar. After being reduced to syrup in the evaporator, the product is allowed to cool and settle, more or less of impurities being precipitated by standing. The syrup is now ready for putting into cans for sale, the size most in use being one gallon. The proper consistency of syrup is generally conceded to be eleven pounds to the gallon, and this degree of density is reached at 219° Fahrenheit. If wanted for sugar, the boiling is continued until the thermometer indicates 232° for pail sugar, or 238° for cakes, when the mass is removed from the fire, stirred briskly for a short time, and then poured into tin pails or cake molds, as the case may be, to harden. Pail sugar retains its flavor better and does not become hard and flinty, as cake sugar does. It does not require so much boiling, costs less than the latter, and is much nicer for household use. Cake sugar is good only when first made, as it not only loses its fine flavor, but becomes almost as hard as rock itself after standing a few weeks.

Prices vary with the season and the quality of the article; good pail sugar being usually worth from ten to twelve cents, and choice cakes from fourteen to eighteen cents per pound in the home markets, with syrup from seventy-five cents to one dollar per gallon, with sometimes lower prices for off grades. The amount of sugar that a single tree produces in the season is about three and one-half pounds for the average sugar orchard. Tapping the tree does not impair its vitality to any appreciable degree, and the holes usually close with the growth of the tree in about three years. The maple tree often lives to be upwards of one hundred years old, its wood is exceedingly hard, and is valued next to coal as fuel.

The census of 1890 found fourteen thousand sugar makers in Vermont, producing annually about sixteen million pounds of sugar, or its equivalent in syrup. Since the removal of the tariff on cane sugar, a portion of the maple sugar makers of Vermont have availed themselves of the government bounty of one and three-fourths, and two cents per pound. The amount received from this source would be greatly augmented if it were not for the exclusion of those producing less than five hundred pounds per year, and the fact that all syrup is barred and pail sugar cannot be brought up to the required standard—eighty per cent. pure sugar—without cooking it so hard as to destroy its market value. The pure product of the maple is hard to find in the city markets, as jobbers adulterate both sugar and syrup with glucose and cane sugar until the compound could not be recognized by a Vermonter, whose State has enacted laws providing severe penalties for any adulteration of her maple

products. The sugar season comes at a time when the farmer could not profitably employ his time otherwise, and taken all in all the sugar industry is one of the most remunerative sources of income of the Green Mountain State.

A Royal Dinner.

It is not served in a grand hall, with troops of soft-footed deft-handed waiters to attend upon the guests. But the names of the dishes are as long, and as difficult to pronounce, as if printed in Russian; and the viands taste as if cooked by the most famous *chef* who ever served a king.

In fact, it is a king's dinner to which we invite you to sit down, though his majesty's royal robe is very scant at both ends, and his crown is a tall is a tall silk hat that has been worn by a United States Senator from the far West. But such small matters are of no account just now; we are hungry for our dinners!

But first it must be cooked, and the cook is no other than our host, a Tahitian King of power and dignity.

His first move is to dig a shallow hole in the ground. This he fills with hard and very dry wood, cut or broken into small pieces. Over this he places two dozen or so of round stones about the size of tennis balls. Then he lights the wood and makes a bright fire. While it is burning he has taken small pieces of beef, fowls, ripe and unripe bananas, and the tops of a wild plant, which somewhat resembles asparagus, and make them up into many separate little packages wrapped in banana leaves.

In about ten minutes the wood has burned out, the stones are hot, and the little packages are all ready to be laid between two layers of the hot stones, which are then quickly covered with fresh earth so tightly that no steam can escape.

For about fifteen minutes more we sit around the little mound thus made, in silent and attentive gravity. It would not be good manners to pay attention to anything else while the important process of cooking is going on.

Our royal cook knows just how long to wait. Then he gravely removes the earth and stones, so carefully that the cooked food is not injured. Each little package is placed upon a fresh banana leaf, and then with knives, fingers, and bits of cocoanut shell, the dainty morsels are divided and eaten with the accompaniments of calabashes full of cocoanut milk, and cold water from a beautiful running stream. No better dinner was ever set before a king, or given by a king.—*American Agriculturist*.

English the World Speech

In an article on the importance of introducing into the schools the study of a universal language (*Weltsprache*), which recently appeared in the *Preussische Jahrbucher*, Dr. Schroer advocates making the study of English obligatory, not necessarily to the exclusion of the classical tongues, but at least in conjunction with them. "This," he says, "is not a question of taste or rivalry between the 'moderns' and the 'ancients,' it is simply a historical necessity. The learned professor properly condemns all attempts, however scientific, to construct an artificial world-speech—like Volapuk. In his opinion a language which possesses neither literature, historical development nor linguistic relations can never serve as a medium of general communication, for the reason that no one will take the trouble to acquire it, merely as a "tool of trade," until it becomes universal. Such attempts, however, are not only aimless, because they can never obtain the general consent of mankind, but they are needless, for there exists already a universal language—*i.e.*, a language which, by its spread over the whole earth, and by the ease with which it may be learned, has gained such a long step in advance that neither natural nor artificial means

can deprive it of its assured position as the future medium of international intercourse. And this language is the English.

Prof. Schroer is careful to warn his readers not to set their aim too high, for to learn to speak and write fluently and correctly a language which holds so high a place in the scale of culture and refinement as the English is difficult; but for the average man this is not necessary; but even the average Englishman has but a limited command of his mother tongue, and the small intercourse of life requires but a small and easily acquired vocabulary. This is true of every language, but the absence of puzzling genders and inflections and syntactical forms renders the English easy in comparison with others. "The English language," concludes Prof. Schroer, "is the world-speech, and will, to all appearance, become more and more so every year."

During the present century the English-speaking population of the world has increased five-fold, from possibly 25,000,000 at its beginning to at least 125,000,000. No other language has ever been so rapidly developed; no fact in civil history is more significant than this. In every quarter of the world is the conquering tongue. The wide spread of the British colonial system, the marvellous growth of the United States and the facility with which it absorbs every foreign element bear witness to this great fact, and our cousins in Germany are of too practical a turn of mind to be jealous or forgetful of it.—*Baltimore Sun*.

Anecdote of Jenny Lind.

The following story offers additional evidence of the loveliness of Jenny Lind's character. She was once visiting at the house of the Reverend Christopher Smyth, rector of Little Houghton, England, and being out for a walk one day, it began to rain. The songstress sought shelter in a cottage, the mistress of which, though not knowing who her guest was, bade her enter and be seated in the best chair. Presently observing a canary, Miss Lind, or Mrs. Goldschmidt, as she then was, arose and began petting the bird.

"What is its name" she asked the mistress of the house.

"Jenny Lind," was the answer.

"Why do you call it that?" inquired Mrs. Goldschmidt, much amused.

"Because its the finest singer in the world," was the complimentary response.

"Have you ever heard Jenny Lind?"

"Oh, no, madame; such pleasures are only for the rich."

"Well, should you like to hear her?"

"Indeed, madame, I've heard about her so often that I think if I could hear her sing just once I'd die happy."

"If that is the way you feel," said the noble hearted cantatrice, "you shall certainly hear her. I am Jenny Lind, and you have just paid me a beautiful compliment, so I am going to sing for you. Now invite some of your best friends to come in and we will have a concert in your own house. If it is not so good as one in the theatre it will not be because the 'Swedish Nightingale' doesn't sing as well as she can."

Scarcely able to believe her good fortune the hostess, although a very aged woman, bustled about and soon collected a few of her choicest old friends to share in the great treat. These Mrs. Goldschmidt arranged like an audience at one side of the room, and then, going herself to the other, she began singing "Auld Lang Syne," and other sweet, plaintive airs. While thus engaged Mr. Smyth entered, but the singer paid no more attention to him than if she had stood upon the stage of a theatre and he had been a late-comer in the audience. At the close of the "concert" the situation was explained. "The audience never forgot that afternoon, nor did their less fortunate neighbors ever cease to envy them their rare experience."



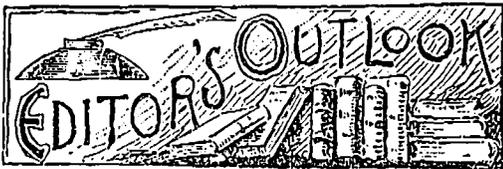
THE SIN OF OMISSION.

It isn't the thing you do, dear,
It's the thing you leave undone
That gives you a bit of a headache
At the setting of the sun.
The tender word forgotten;
The letter you did not write;
The flower you did not send, dear,
Are your haunting ghosts at night?

The stone you might have lifted
Out of a brother's way;
The bit of heartsome counsel
You were hurried too much to say;
The loving touch of the hand, dear,
The gentle, winning tone
Which you had no time nor thought for
With troubles enough of your own.

Those little acts of kindness
So easily out of mind,
Those chances to be angels
Which we poor mortals find,
They come in night and silence,
Each sad, reproachful wraith,
When hope is faint and flagging
And a chill has fallen on faith.

For life is all too short, dear,
And sorrow is all too great,
To suffer our slow compassion
That carries until too late;
And it isn't the thing you do, dear,
It's the thing you leave undone
Which gives you a bit of a headache
At the setting of the sun.



WE commend these words to our readers:—No live stock promises better average returns for the next five years than beef cattle. For seven years past the beef industry has been undergoing a readjustment, which has during the past two years placed it upon a more stable basis. The immense ranch is no longer in the way of smaller herds. Speculators no longer regard the bovine a bonanza, and the situation assures normal, steady and profitable returns on feeding and grazing enterprises. The reduced supply throughout the country encourages the belief that the breeder will secure large profits. Cattle of all ages are in demand. If the cows and heifers are bred carefully, being mated with pure-bred bulls of the best quality, the produce for 1895 and following years will be of advanced value and paying property.

LAST week we had additional evidence of the world-wide influence of Ontario's exhibit at the World's Fair, in the presence in the Province of Mr. J. Steyr, of Birbeck West, Cape Colony, South Africa, who was attracted by the excellence of the dairy display made by Ontario and in consequence of which he came here to learn what he could about the industry. Mr. Steyr's father, a Dutch Boer, possesses one of the largest ranches in South Africa, there being about 200 milch cows kept. It was learned that the skim milk given by these kine is at present thrown away, so crude are the dairying methods in the fertile country he belongs to. His visit is likely to cause a revolution in dairying in South Africa. He bears testimony to the high state of development here, and he will introduce many of our methods at once in his own country. Thus enlightenment spreads. It may interest many of our readers to know that while the fame of Ontario dairying has not yet reached South Africa except via the World's Fair, the fame of Canada's manufactures has been firmly established there by the enterprise of the Massey-Harris Company, whose goods go very extensively over every community of the great south of the Dark Continent, as well as to all other parts of the globe where the march of civilization has penetrated, bearing the name of Canada and the repute of her artisans and bringing her and her excellence prominently before the world.

The *Australasian*, of a late date, contains the following contribution from Mr. J. A. Wallace Dunlop, Glen Wallace, Powong, Australia, on the origin of Ayrshire cattle: "The following has been handed down to me as the origin of these cattle: My great grandfather, John Dunlop, about the year 1710, put a Devon bull to some Guernsey cows, and a Guernsey bull to some Devon cows; selections were made and recrossed, from which crosses sprang the renowned 'Dunlop' or 'Ayrshire cattle.' It is a matter of family history that the foregoing is the true origin of the Ayrshire cattle."

BUTTER statistics recently published in the United States give some curious facts. The census return shows the enormous aggregate of 600,000 tons, or 1,200,000,000 pounds, manufactured in the United States in 1890, and the quantity has increased since. It is computed that the product would require 1,000 freight trains of 30 cars each, and each car carrying 20 tons, to transport it. Iowa seems to be the largest butter producer—her returns three years being 100,000,000 pounds, worth \$21,000,000. Illinois stood next with 95,000,000, worth \$20,000,000. Wisconsin's product was 45,000,000 pounds, worth \$9,000,000, and Minnesota's nearly as great—being worth \$8,000,000, while Michigan's was worth \$7,500,000. In 1885 the assessed value of the cows was \$700,000,000, more than the capital of all the national banks at that time. Incredible as it may seem, it appears that the annual daily butter product in the United States exceeds in value that of all the lumber, wheat, and iron combined. That, at any rate, is the statement of a statistician who publishes the results of his figuring.

DURING last month statistics came to hand showing the volume of the hay trade of Great Britain, which, as every farmer knows, was, last year, a failure. The figures will interest Canadians as they show that Canada to a greater extent than any other country except the United States took advantage of the situation, to extend her trade. The quantity of hay im-

ported during the year was 263,050, compared with 61,237 tons during the previous year. Of the whole quantity, the United States supplied 101,132 tons against 11,588 in 1892; Canada, 63,175 tons against 13,120; Holland, 28,332 tons; Russia, 27,694 tons; the Argentine States, 24,594 tons; and Australia, 49 tons. The importations from Holland and Russia are regarded with much apprehension, the fear being that they may bring disease, and especially the cholera, which has been more or less prevalent in both countries. English consumers express a hope that the Canadian and American exporters will in future discard wire binding, as there is danger to the animals from swallowing fragments which are occasionally found in the hay which has thus been tied up.

THE country is flooded with "facts and figures" of our agricultural and dairy resources. If we take stock of our assets, so to put it, we find that there are 856 cheese factories operated in 1892, an increase of 18 over 1891, not including private dairies. The cheese output shows the enormous increase of nearly twelve million lbs. with prices 20 cents per one hundred lbs. better. The cash receipts for cheese exceed those of 1891 by \$1,303,455. The making of creamery butter and the starting of new creameries show good advance. Of 27 butter factories reporting, the output of butter was 67,809 lbs., compared with 48,851 lbs. in 1891. As to live stock there is a very fair distribution. The horses are reported to be worth \$55,812,920; the cattle, \$45,518,475; the sheep, \$8,569,557; and hogs, \$5,479,093. The total value of the live stock \$117,501,495, compared with \$108,721,076 in 1891. Surely there is comfort in a review of these figures which prove the wealth of the banner province of the Dominion.

To a western co-laborer we are indebted for this pithy advice:—The worst use to which good manure can be put is to cart it to the fields and leave it in heaps to be spread in the spring. The result of this mistake will be that the soluble part of the manure will be washed into the ground under the heaps, saturating the soil there to excess, causing the crop to grow to excess, and fall down and lodge, or if it is wheat, to rust and become worthless, while the rest of the land is robbed of its share. The best use to put the manure to, is to draw it to the field on the snow in low sleds, making it easier to load and draw and spread, and scatter it at once where it is intended to make use of it. It is then doing the most good it can. It speedily sinks in the snow to the ground, and there is absorbed and in the spring it is easily turned under at the first opportunity, often saving two or three weeks and sometimes a month in the sowing of the oat crop, thus making it safe, when otherwise it would have to contend with every risk possible. Nothing can be lost in this way, for whatever is made soluble by decomposition goes into the land just where it is wanted. If the manure is kept in the yard until the spring there is the delay and the difficulty in getting it on the land, saturated as it is with the melting snow or early rains, and softened by the thawing.

ON the 14th of last month Hon. Mr. Mackenzie Bowell was entertained to a banquet by the Canadian Manufacturers, then in session in Toronto. His speech was a magnificent exposition of the trade relations of Canada and other countries. Naturally, coming after his trip to Australia, the hon. gentleman dwelt at length on trade with the Antipodean colonies. In the course of his speech he made the following remarks than which a higher compliment was never paid to a Canadian manufacturing firm:—You must not expect the Government to do the manufacturing, to pay the cost of sending your goods across the ocean, to sell them for you and then to give you the proceeds. If we did that,

some—I know you would not—but some would ask us for the gross proceeds and make us pay for the expense ourselves. (Laughter.) What I think you ought to do, and the Government ought to do and is prepared to do, is to select a good, practical man, a man who thoroughly understands not only the manufacturing capabilities of the country, the industries, the output, the input, if I may use the word, and send him there to act in concert with the manufacturers of this country who desire to find a market in that part of the world for their manufactured products. What I think you ought to do, what I am prepared to recommend to my colleagues, is to select some one—I have a man in my eye now; I think he would accept it; he has all the capabilities to which I have referred—and what I want the manufacturers to do is to adopt some means by which they can have an establishment in Sydney or Melbourne—that is a matter which you must discuss yourselves—to which office they can send whatever they have to sell in Australia. The only expense would be the rental, the cost of sending the articles, and a clerk who could act in concert with a man who thoroughly understands what could be sent to this country and what the markets are. I have not the slightest doubt in my mind that if that policy were adopted, and it would cost you very little, that you would in five or ten years build up a trade with that country that would astound the people of this country. Look at what the Massey-Harris Company has accomplished in the last five years. I have under my hand now figures of their operations during the last year. Five years ago, when they first sent their agent into Australia to sell reapers and mowers, they were laughed at and told to take them back to Canada. "Where is Canada?" said some men. "We know nothing of Canada. We are dealing with the United States; their goods are good enough for us in that line, and we don't see why we should buy from you."

But these men have that true Canadian pluck which characterize our manufacturers and our people, and they said to them:—"No, we propose to sell these machines or give them away." Last year they sent no less than 875 self-binders, and they sold them at prices which were remunerative. I read in a newspaper the other day a statement made by some person who was denouncing protection, and it was that that firm were selling in New Zealand and the Australian colonies self-binders and cultivators at lower prices than in Canada. Perhaps you would be astonished if I were to tell you that the prices they got in Australia were 100 per cent. more than they got in Canada. This fact I know from personal observations. That is an illustration of the length to which some people will go in order to destroy the industries which are existing and which are being built up in Canada. In addition to those 875 self-binders they sent of cultivators and seeders no less than 870; mowers, 200; rakes, 48; ploughs, 38; reapers, 32. When I came back Mr. Massey told me that he had received a cable from his agent to send 500 cultivators. They are extending that trade to all the islands in the Pacific, and they are also sending their products to the Argentine Republic, to Peru and to other places. What the Massey-Harris Company can do, why cannot you also do. If you cannot do it individually do it collectively, in the methods I suggested a few moments ago. That is not all. The attachments to these implements numbered 1,551, making a total of 3,623. Let me hope that there are others who will do the same.

THE embargo on American cattle at British ports is giving rise to an agitation in the United States as well as Canada. Recently a meeting of the United States Veterinary Medical Association was held in Chicago when the following resolutions on "Contagious Pleuro-pneumonia" were adopted: Whereas, the most satisfactory and conclusive testimony having been presented to the first Veterinary Congress of America, assembled in Chicago, that our

country is entirely free from a single case of "Contagious Pleuro-pneumonia" and has no doubt been so for the past two years, be it *Resolved*, That we ask of Great Britain the entire removal of the quarantine regulations applying to "Contagious Pleuro-pneumonia" in the United States, and further that it having been clearly demonstrated by the Canadian Department of Agriculture that "Contagious Pleuro-pneumonia" does not exist in Canada, it is the opinion of the Congress that the quarantine of the United States against Canadian cattle is unnecessary and should be removed, and that Canada be asked a similar consideration in regard to the freedom of trade between the producers of that country and those of the U.S. It is extremely unlikely that the British Government will remove the quarantine restrictions, but the very fact that the request has been made by the United States should spur Canada on to press her claims to an open market. One of the most effective arguments against the admission of Canadian cattle was the proximity of Canada to the United States and the intercourse between them. Now that the statement is put forward that for two years the United States have been free from "Contagious Pleuro-pneumonia," it should break the force of Britain's objection to give ready access to Canadian stock.

THE complete agricultural statistics for New Zealand, for the past season, show a decrease of 1,879,531 bushels in the gross produce of wheat, as compared with the previous year; a decrease of 1,115,121 bushels of oats; a decrease of 31,542 bushels of barley, and a decrease of 2,161,000 bushels of potatoes. The average yields per acre were: Wheat, 21.98 bushels; oats, 30.30 bushels; barley, 26.27 bushels; maize, 38.22 bushels; potatoes, 212 bushels. These estimates have been checked by threshing-machine owners' statements, and are, therefore, trustworthy. The Hessian fly did considerable damage in several districts.

IN the Australian colony of Victoria there are 146 landowners, who each hold over 10,000 acres, the largest being Sir W. Clark, with 177,852 acres. A land tax in 1877 was designed to break up these large estates, but it has failed to do so, though proving an excellent source of revenue. The land is divided into four classes: That which carries two or more sheep per acre is valued at \$20; that which carries an average of one and a half sheep valued at \$15 per acre; that carrying one sheep at \$10, and that which carries less than one sheep is valued at \$5 per acre.

PAYMENT for milk according to the percentage of butter fats is becoming the rule in Australian and New Zealand butter factories, and the Babcock tester is coming to be as much a recognized need as the separator or churn. This is working a revolution in the local dairies by inciting their owners to weed out their herds, retaining those cows only which produce a profitable amount and quality of milk.

THE apple crop for 1893 has been heavy throughout the United Kingdom, and the fruit is quite equal to the average in size and somewhat above it in quality. Pears, although less plentiful, gave a good return.

WITHIN the past twenty years the area planted to wheat in Great Britain has decreased by 1,600,000 acres, and that planted to barley by 260,000 acres, while the area planted to oats has increased by 496,000 acres.

THE Acclimatisation Society of Auckland, New Zealand, is introducing opossums into the district.



1st.—Wilson Tariff bill passed the United States House of Representatives. . . . British Board of Agriculture again refused to remove embargo on Canadian cattle.

2nd.—King Behanzin of Dahomey surrendered to the French. . . . Rev. Chancellor Burwash presented with a handsome purse of money on the occasion of his European tour. . . . Death of the famous Cardinal Luigi Serbelloni occurred.

3rd.—Prof. Edmond Fremy, the well-known French chemist died. . . . Geo. W. Childs, journalist and philanthropist, died. . . . J. M. Savage, conservative, of Rat Portage nominated to contest W. Algoma in the Ontario Legislature.

5th.—Plebiscite vote for prohibition shows a majority for 81,730. . . . Edward Brome Jones of the Royal Academy created a baronet.

6th.—Dr. Theodore Billroth, the distinguished German surgeon, died. . . . W. B. Searth elected president of the Winnipeg Board of Trade. . . . The Chicago Herald will fit out a polar expedition.

7th.—Canadian House of Commons to meet on the 15th of March. . . . Central Farmers' Institute met in Toronto. . . . Reported that a French naval officer has invented a rifle capable of firing two kinds of explosive bullets, with immense power of penetration.

8th.—King Lobengula deserted by his followers and a fugitive. . . . Outbreak of violent riots in Bombay. . . . Mrs. Harriet Beecher Stowe reported to be dying.

9th.—Free books adopted for Kingston, Ont., public schools. . . . Flying column of French army annihilated in Timbuctoo. . . . Hon. Edward Blake entertained at a reception in New York.

10th.—Russia announced that she will not increase the tariff on French goods for the present. . . . Russo-German commercial treaty signed. . . . John Simpson, Canadian journalist, died in Montreal. . . . Rev. Dr. Douglas, Montreal, died.

12th.—Federation of the Australasian colonies' scheme revived. . . . Mr. Villeneuve confirmed in the majority of Montreal. . . . Fourth session of the Nova Scotia legislature brought to a close.

13th.—Albion hotel at Stratford, Ont., totally destroyed by fire. . . . British Board of Trade promise to reconsider their decision on the quarantine of Canadian cattle. . . . Disastrous cave-in at the Gaybord mine took place.

14th.—Ontario Legislature opened. . . . Lieut. Governor Carvell of Prince Edward Island died. . . . Funeral of late Sheriff MacKellar took place.

15th.—Rev. Dr. Shaw appointed provisional principal of the Wesleyan Theological Seminary, vice late Dr. Douglas. . . . Greenwich Park dynamite explosion occurred. . . . The "Antigone" presented in Greek by the Toronto University.

16th.—First shipment of canned goods from Picton, Ont., to Australia by the new steamship line. . . . Mr. J. M. Clark, Liberal, returned for south Lanark for the Ontario Legislature.

17th.—Fatal explosion on board the German cruiser, *Brandenburg*, at Kiel, causing forty-six deaths. . . . The famous Gilbert S. Rosenbaum, reported the wealthiest Jew in America, died. . . . Lieut. Westmark opens an attack on explorer Stanley.

19th.—Henry Irving and Helen Terry appear in Toronto after an interval of ten years. . . . Branch of the Canadian Art Club opened in Winnipeg. . . . Hon. H. G. Joly addresses a large meeting in Toronto.

20th.—Judgment rendered in the Manitoba school case by the Supreme court at Ottawa. . . . Hon. A. S. Harty succeeded in the Brantford City Solicitorship. . . . Grand Lodge A. O. U. W. of Ontario, opened in Toronto.

21st.—J. H. R. Molson, Montreal, donated five thousand dollars to the general hospital there. . . . Senator Howlan appointed Lieut. Governor of Prince Edward Island. . . . Sir Oliver Mowat re-nominated for North Oxford.

22.—Washington's birthday generally celebrated in the United States to-day. . . . Prof. Ed. J. Phelps of Yale, Ex-Minister to Britain, and senior American counsel, in the Behring sea arbitration, reported seriously ill.

23rd.—Strong agitation in Britain for the overthrow of the House of Lords. . . . Burton Stewart instantly killed at St. Catharines. . . . Commotion and riot in Washington over the hoisting of a British flag by a private citizen.

24th.—Fire destroyed dome of Agricultural hall World's Fair. . . . Judgment given by Privy Council declaring Ontario Act respecting assignments, etc., valid. . . . Steps taken to extradite Jabez S. Balfour from Buenos Ayres.

26.—Mr. Meredith, M. P. appointed to transact the legal business of Toronto. . . . Denial given to reported defeat of British troops in British Gambia. . . . Mr. W. Harty re-nominated for the Legislature, for Kingston.

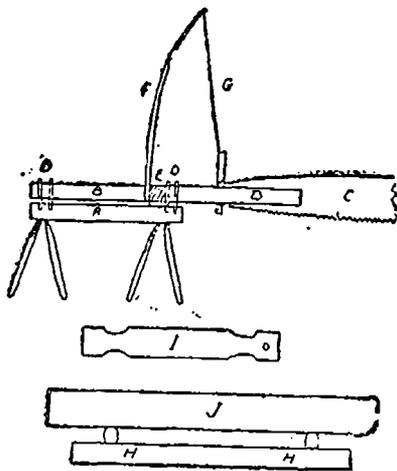
27th.—Supreme Grand Lodge Patrons of Industry met in Toronto. . . . Ontario Land Surveyors held their annual meeting in Toronto. . . . Rumored resignation of Mr. Gladstone denied.

28th.—D'Alton McCarthy banqueted at Collingwood. Debate on Mr. Meredith's proposal of biennial sessions took place.



Cross Cut Sawing.

THE following pointers will be found useful by the farmer or farm help, especially in winter:—A is the bench made of a log flattened on top. B B two boards, four inches wide, placed on top of the bench which are far enough apart



for the saw handle to work between. C is the saw. D D pins in the bench to hold the boards which should be nailed down. E is the block of wood between the boards to hold them in their place. F is the spring pole. G is the rope attached to spring pole and saw. H H is the log way, consisting of two logs placed about two feet apart, and showing the ends of two rollers on them to keep the front one in its place at each end. I is the shape of the front roller on the one side where it rests on the log way. Bore two holes in either end in opposite directions to insert a short lever with which to turn the roller. J is log to be sawed. Attach the saw and see how easy one man can use it and thus save expense.

Desirable Modern Barn.

A New England farmer, who is interested in the subject and has inspected a large number of barns in several states, gives the benefit of his observations and experience to others through the columns of *The Farm Journal*. He says:

After giving much thought to the subject I have drawn a plan of some features which the modern model should contain, with greater or less modifications. It does not embrace everything, and yet for dairying and stock feeding its main features are invaluable, as it saves time and labor without being more expensive than if it were built after the old-time plans.

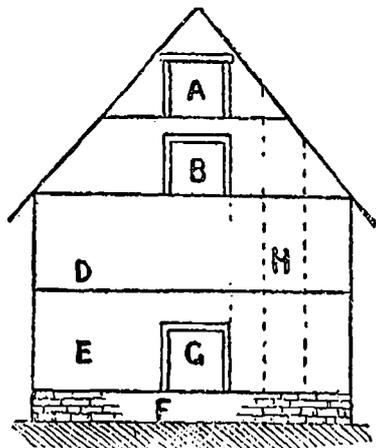
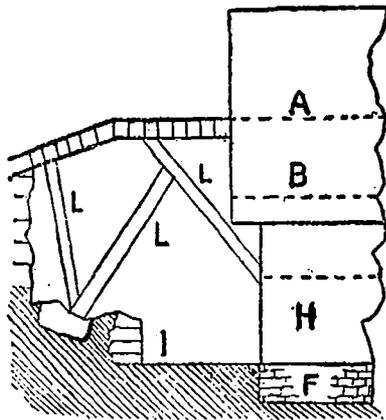


DIAGRAM OF MODERN BARN.

My model may be termed a gravity barn, because the natural law is taken advantage of in handling all fodder, including ensilage and other heavy substances, no lifting nor high pitching

being required. It is erected in a side-hill, from the highest point of which wagons loaded are driven into the peak at the gable end. Where a plank incline is required, an extra heavy timber frame should first be erected and then well planked. This portion of the edifice should be made as short as possible by filling in the approach. An extreme case is shown in the second cut, including the heavy frame required for such a length of incline and platform.



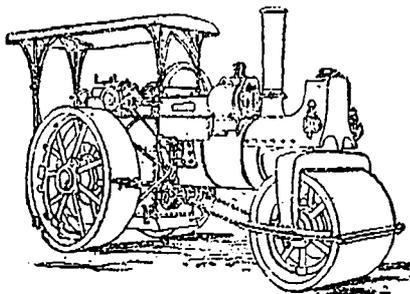
SHOWING DRIVE, FLOORS, SILOS, ETC.

Directly beneath the drive floor the threshing floor is located, and this may be filled full to the drive door if desired through trap doors or removable sections in the drive floor. No ensilage carriers, hay forks nor machinery nor time for driving them will ever be required in such a barn. The stock enters the first floor from a level, and the manure is drawn out through a large door on the lower hillside. On this side also mowers and other machinery and farm rolling are run in out of the weather. The posts of this barn are 18 by 20 and the roof is a quarter pitch.

In the first cut is represented at A, platform and floor; B, threshing floor; G, dung pit; D, cows or sheep; E, wagons and machines; F, underground foundation; H, silos. In the second cut is shown at A, platform and floor; B, threshing floor; F, underground foundation; H, silos; I, drive; L, supports.

Steam Road Roller.

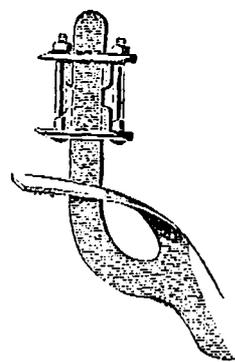
To construct a good roadway the use of a roller is necessary. When so much is spoken and written on good roads these days, a few pointers as to construction will be in place. And first of all the earth foundation upon which



the broken stone is to rest should be well rolled. It cannot be rolled too solidly. No matter what may be the appearance of the earth bottom after the excavation is completed, it is more than likely to contain many soft spots, which can be brought to light very quickly by the passage of a heavy roller. In rolling the earth bottom it is generally best to begin at the sides of the excavation and work toward the center—that is, begin by rolling along the outer edge of the excavation from end to end, and on the second passage of the roller let it move along parallel with the first course of the roller and slightly lap the portion already rolled. When a point near the center of the road is reached, begin on the other side of the excavation and repeat the operation, finishing at the center. Rolling is omitted when the soil is of a hard, gravelly nature, or when a stiff clay is found which presents a firm surface, but whatever be the nature of the soil the use of a heavy roller

will generally develop weak spots, the presence of which would not otherwise have been suspected. This fact may be demonstrated by passing a heavy steam roller over the earth foundation after excavation has been made for the macadam roadway. It will be found that the passage of the roller over what appeared to be a well graded surface of compact material will develop a series of humps, holes and undulations, utterly destroying the uniformity of the grade in places, and revealing many soft and weak places which are wholly unfit to sustain a permanent stone roadway and the wagons which are to pass over it.

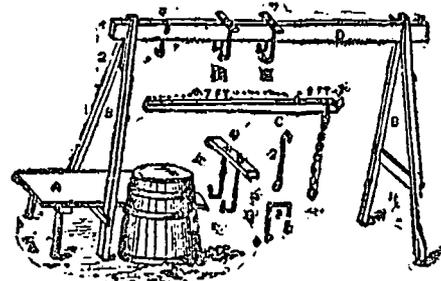
A Useful Plow Coulter.



THE illustration here given is engraved for the *MASSEY ILLUSTRATED* from a picture in the *Rural New Yorker*. In plowing sod or turning under weeds or grass this coulter will prove a great help. It is specially designed to effect this purpose and is said to be quite successful.

Butchering Outfit.

FARMERS who butcher their own hogs in the fall, all know the old way of butchering is very inconvenient and tiresome. The following illustrated arrangement makes the labor com-



paratively easy. The top piece is 8 x 5 inches and 12 feet long. The mortises for B B to fit in are made 5 inches from the ends of piece, and are 1/2 inch deep, 2 1/2 inches wide at bottom, by 1 1/2 inches at top, thus only one bolt is needed to hold them together at top. The upright pieces B B are 2 x 2 1/2 and 7 ft. long; crosspiece, 1 1/2 x 2 1/2 and at one end this should be bolted on upright pieces, down low enough so that the bench will set over it. The lever is 3 1/2 x 2 at staple, and shaved down to 1 1/2 at end. Staples made of 5-16 inch rod iron, and long enough to clinch. Clevis where chain is fastened is made of 3/4 inch iron. Fig. 1 is iron, 6 x 2 x 1/4 bent, as shown for gambrel stick to rest on, while lifting hog to Fig. 4, which is made large enough to slip back and forth easily on upper piece. Rods 1/2 inch, bent to hold gambrel stick, Fig. 2, is 3/4 x 13 inches long, on which lever rests while lifting to Fig. 4, Fig. 3, 1/2 inch iron on which lever rests in scalding. Bench, 19 x 1 1/2 inches, 20 inches high, 8 ft. long. Barrel to set in the ground 1/2 its length

A STRAW shed is a cheaper stock shelter than is a board fence.

DON'T drink impure water. If you have any suspicions as to its purity, boil it.

Now let the best work of the farm be commenced, by laying out plans for the next year's work.

STAGNANT water should never be allowed near the farm houses. It is not only an eyesore; it is positively dangerous to the health.

EDITORIAL NOTES.

THE Icelanders of the Tiger Hill settlement are giving considerable attention to sheep raising, and are, perhaps, the only persons in Manitoba that prepare homemade cloth, flannel and stocking yarns from the wool of their own flocks. The wool is carded with hand cards and spun in a very skilful manner. Some of the wheels used are of a very old fashioned kind, such as were used in Iceland, and a number have been brought from the distant island with other baggage. The wheels much resemble those introduced into Manitoba by Lord Selkirk's first settlers. When the wives and daughters of the Icelanders have prepared the yarn, what is not required for stockings is wove on hand looms into excellent and durable cloth.—*Exchange.*

A CASE of changing the brands on horses, tried at Moosineu, calls attention to the system of branding. The law as regards horses running loose on the prairie is very strict, although in some cases it has been allowed to become a dead letter. The horses that are allowed to run on the prairie must be branded, and the brand registered. No one but the owner is safe in capturing them, as a horse, no matter how far it may be from the owner, is not lost. Bands of horses are frequently outside the settlements, that the owners do not see for months. Cases of horses straying away and never found are not surprising on the prairie, but horses stray far from home and are discovered.

ON reading some of the newspapers of late, one would be apt to think that credit, which bears so important a part in the world's economy, is either not understood, or has many evils and few or no advantages. Now, what is credit? It has been defined as "Permission to use the capital of another person" also as "The power to use the goods of another in consideration of the promise of value in return" and as "Confidence in the ability of another to make a future payment." Neither of these definitions seem to quite convey the full meaning of the word. Credit has two economic meanings—namely, a commercial transaction of a certain kind; and the ability to enter into such a transaction. Then there are three elements in a business transaction to which the term credit is usually applied:—First, the present transfer of goods; second, the use of goods transferred; and third, the future re-transfer of the goods or payment for the same for the use thereof.

CREDIT has its advantages and disadvantages. Its advantages may be briefly summarized as follows: 1.—Capital is employed more productively. He who possesses capital, but is unable or unwilling to use it, transfers it to another for compensation. Other things being equal, it is given to him who will pay the most for it, and this is generally the one who can employ it most productively. 2.—Credit enables those who have business qualifications and no capital to engage in business, and so employ their talents for their own benefit and for the benefit of society. Credit in many instances brings together capital without business ability and business ability without capital, and is thus a powerful factor in uniting capital and labor. We see that in the productive co-operative societies of England and France and Germany, and in the building societies of England and Canada and the United States. 3.—Credit gathers together the smallest sums by means of saving banks, and these small sums forming a large aggregate are productively employed by joint-stocks companies, etc. Capital is thus concentrated, but its returns are scattered among the people. Credit promotes thrift by enabling one to get interest on their savings. Credit gives employment to small savings as they are made, and helps man to provide for emergencies and for old age.

On the other hand credit has evils. It has a tendency to encourage extravagance and precarious speculation, if given for too freely and indiscriminately.

As a general rule, it may be said that "productive credit," credit for the better enabling a man to carry on his business, is good. It is good economy for a farmer, if he has not the cash, to get a plow on credit in preference to digging up the ground with a spade, or a binder on credit in preference to cutting his crop with a scythe. But "consumptive credit," that is, credit to enable one to spend money for one's personal gratification, or for personal use in any way, is generally bad and should not be encouraged.

Don't Waste the Straw.

It was till quite recently common in England and some other European countries, when making out the lease of a farm to insert a very stringent clause that straw (and oftentimes hay as well) should not be sold from the farm.

It is asserted that the increase in knowledge and the improvement in practice of late years, have proved that the idea regarding the value

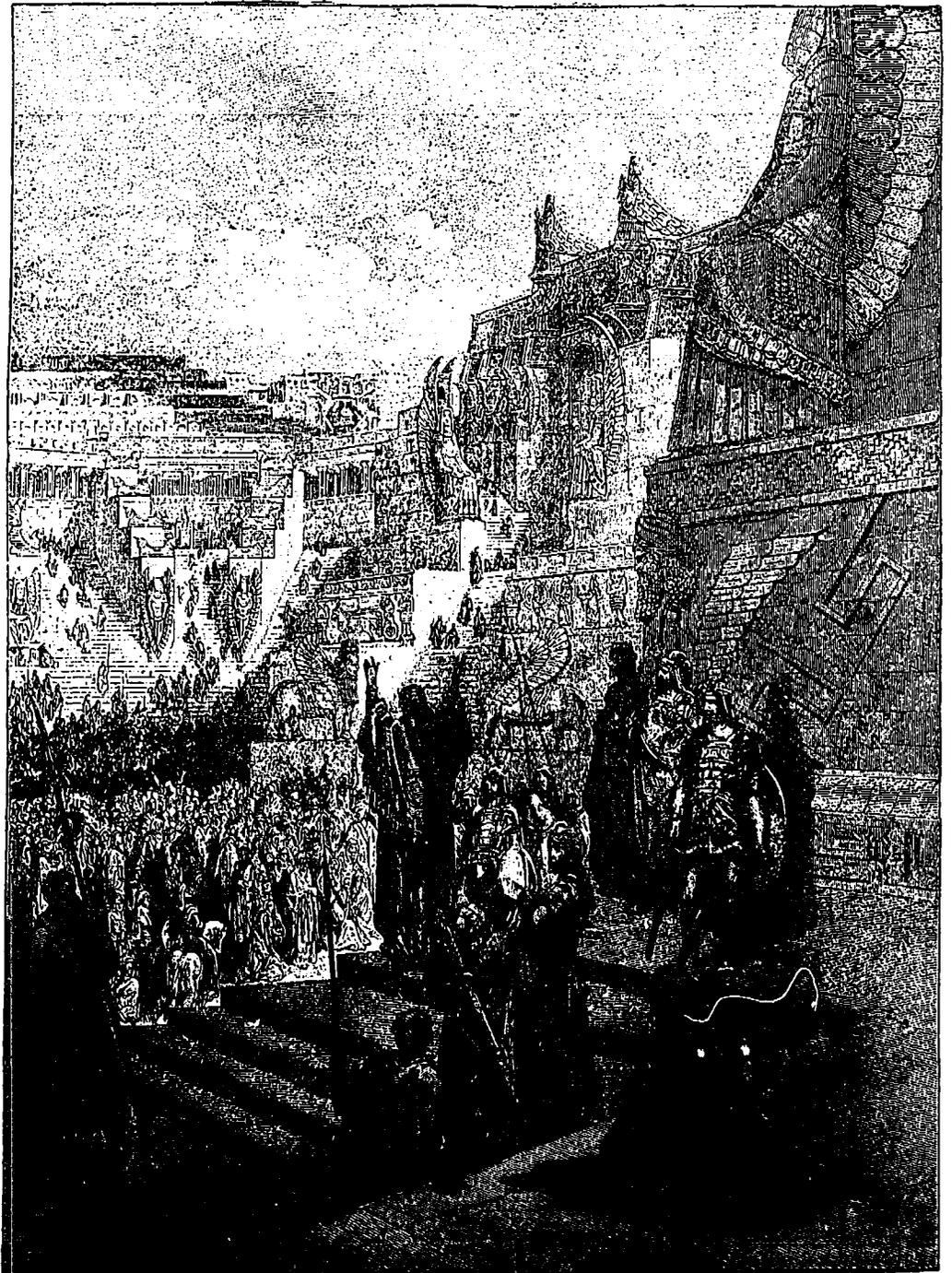
of straw on a farm was an exaggerated one. This may be true to a limited extent. But that same assertion has led many farmers to the other extreme, and to undervalue a very useful article; in fact, to look upon straw as a nuisance; to be got rid of as easily and quickly as possible. On our plains many burn it as the readiest way of disposing of it.

This is much to be regretted. But until farmers take the place of "wheat growers," much straw will doubtless be burnt.

We have in our mind a district in Ontario, that years ago was a rich farming country. A paper mill started and bought straw. The farmers sold their straw at two to three dollars a load. For a while times were booming. But gradually the crops waned and waned. Now, it is a waste of sand, and would cost more to bring back to fertility again, than good land could be bought for in adjoining districts.

It is true that our lands are so rich in plant growing material that it will not be necessary this year or next year or for many years to put back the straw as a fertilizer.

But note this. If the straw is put back on the land in the shape of coarse manure, it will



EGYPTIAN SPLENDOR.

have somewhat the effect of underdraining. It will loosen the soil, and enable the warm air to percolate through. The result will be, the seed will germinate sooner, grow quicker and stronger, and ripen a week or ten days earlier than seed sown on land that has not been so treated. Read this again. Try it next season, if possible. The result we know will be gratifying. In some years it will mean the difference between a good crop and a poor crop or none at all.

It is certain that no one who raises grain can afford to allow the straw to be wasted or burnt. At times it can be profitably used for feeding cattle. The farmer who finds that his hay is coming out short in the spring is fortunate if he has a good quantity of clean and bright straw. By feeding it with the hay and adding a moderate quantity of meal, he can bring his cattle out in the spring in good condition.

A good deal of straw can be used for bedding. For this purpose it should be well stacked to keep it dry. Though often used without preparation, it is better to run it through a feed cutter before it is put into the stable. This will greatly improve it for bedding, hasten its decay, and make easier the work of getting out the manure.

If all the straw cannot be so used, spread it on the ground to the depth of two or three feet, scattering corn among it as it is being piled, and let the hogs work it over. This will hasten the process of decay, and render it fit as coarse manure to put on the land.

Selected.

Farming in Manitoba.

MR. R. BAXTER, of Springfield, near Winnipeg, affords an example of successful farming in Manitoba. Mr. Baxter has only been in the province about three years, but he has increased his worldly possessions several hundred per cent during this time, and he has made it all on his farm. This result he has achieved by perseverance and energy, intelligently directed. Mr. Baxter came to Manitoba with limited means and located on a farm near Winnipeg. He has followed a system of mixed farming from the start, and has not relied upon grain crops alone, though he has been successful with his grain crops, and has increased his area to over 100 acres this year. He has endeavored to farm well, rather than farm on a big scale. Instead of cultivating 200 acres in a hap hazard way, as many farmers do whose chief ambition seems to be to get as many acres under crop as possible, he has been contented with half that quantity, of well-cultivated land. As a result, he is known to the grain buyers in Winnipeg as a man who always has a fine quality of grain to market, and he usually succeeds in getting a higher price for his grain than the ordinary current quotation.

Mr. Baxter has been successful with live stock, particularly with sheep. He brought a few head of selected thoroughbred Shropshire sheep with him, and he has augmented his original flock by occasional importations. He has disposed of a number of sheep to farmers in Manitoba, for breeding purposes, besides his sales to Winnipeg dealers. This fall he has added about 200 head of sheep to his flock, including some imported English Shropshires. He also raises hogs for breeding and general purposes. He has been very successful in securing prizes at the Winnipeg Industrial and other exhibitions, for his stock. Mr. Baxter admits that he has done well in Manitoba. He recently received a very tempting offer to take a partnership in and the management of a large stock farm in the east, but he preferred to remain in Manitoba. - *The Colonist*.

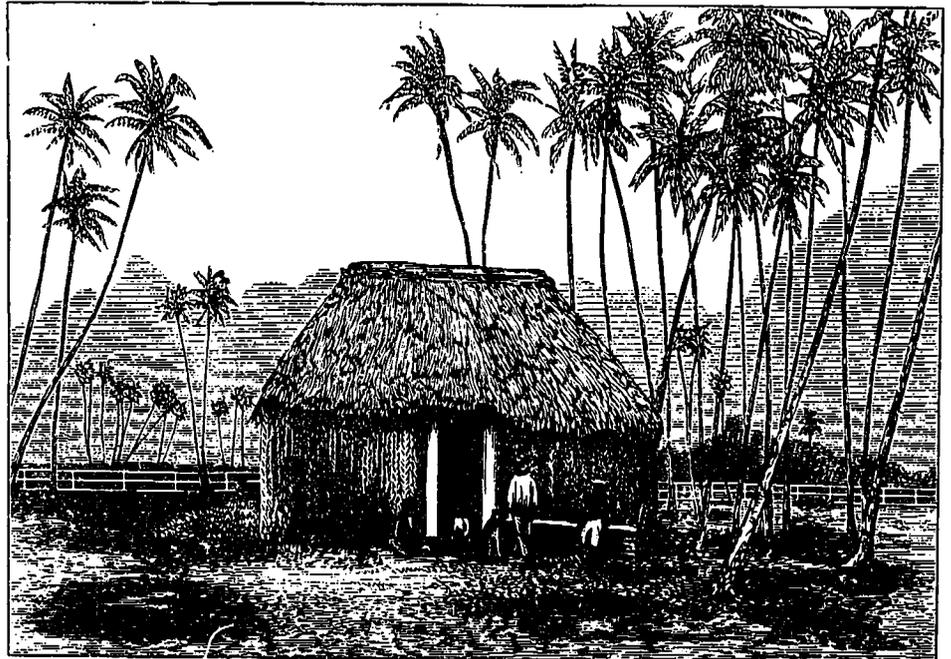
Undesirable Immigrants.

We do not know what data the grand jury at Brandon had before them when they condemned the Barnardo plan of boy immigration. We can hardly conceive that the jury would make the complaint they did without authentic information that would go to bear out their remarks. *The Commercial*, however, has been unable, after some investigation, to verify the severe denunciation of the Barnardo immigration by the grand jury. From what we can learn, we cannot conclude that the Barnardo boys are responsible for any increase of crime in Manitoba. While making this statement, *The Commercial* will own that we may possibly be wrong and the grand jury right, as our investigation of the matter has not been very thorough. It has been stated that only one Barnardo boy was charged with an offence at the Brandon assizes, which does not appear to be a serious matter. If this is all the grand jury had to go upon, besides prejudicial hearsay, they were not warranted in making the denunciation they did. Perhaps even the grand jury did not consider the gravity of their charge. So far as *The Commercial* is aware, there may be as great a tendency to crime among boys brought up in the country as is the case with the Barnardo boys. The fact is that, owing to a certain prejudice, an offence committed by one of these boy emigrants is heralded all over the country, while a dozen similar crimes by others would never be heard of beyond perhaps the usual local press notice. *The Commercial* has always taken the stand in favor of a strict inspection of immigration, with a view to discountenancing the settlement of unsuitable persons in our midst. This applies to all emigrants, old and young. It would be far better to have our population increase slowly, than to have it increase rapidly by the vicious and immoral, the shiftless, or persons physically or otherwise unsuited to our climate and general conditions of life. As for these Barnardo boys, we believe the majority of them are liable to succeed better in this country than any foreigners. In the first place they are young, and they will have ample time to acquire a knowledge of the country before they would arrive at an age when they would be warranted in starting out in farming or any other calling for themselves. Secondly, the plan of placing them with responsible farmers in the country, gives them a great advantage over many other immigrants. Whatever may be said about the Barnardo boys, we believe that the country has suffered much more seriously from the placing of certain colonies of foreigners in our midst, which are made up of persons quite unsuited to the country, and altogether undesirable as settlers. - *Winnipeg Commercial*.

The Export Cattle Trade.

MR. ROBERT IRONSIDES, M.P.P., member of the well-known firm of cattle exporters, recently favored us with the following interesting letter in reply to an enquiry as to the past season's cattle trade:—

"We have shipped 9,665 cattle to the Old Country market from Manitoba and the North-west, the season of 1893, and paid on an average 3½ cents per pound for choice export cattle, weighed off cars at Winnipeg. The cattle were from two years and six months old up to five years old. Cattle, after they are six years old, are classed as oxen in the Old Country markets, and sell the same as bulls, stags and cows, etc. I believe that this trade, as yet in its infancy in this country, is bound to grow to enormous proportions. As to the 'embargo,' I maintain, as I always did, that it will benefit Canada in the long run by compelling farmers to stall-feed and fatten their stock at home, and by applying the manure to enrich their land. Take, for instance, the experience of N. W. Balwin, Manitou, who feeds considerable stock every season. Last winter's manure from the stable was put on part of a field and barley sown on the same. The yield of the portion manured was forty bushels per acre, while that part of the same field not manured only yielded twenty-five bushels per acre—an increase of fifteen bushels per acre from the manured portion, and if followed with wheat will show as great a difference in the yield, besides being of better quality. Therefore, I contend that it will pay a farmer to feed, even though he gets no more for his labor than the manure. One load of such manure is equal to a barn-yard full of rotten straw. Farmers are alive to the situation, and intend feeding large numbers for the spring trade. They are safe in stall-feeding, and will get 3½ cents per pound weighed off cars at Winnipeg (buyers to pay freight), for all choice export cattle in spring of 1894. I strongly advise them to do so, as they will make at least sixty cents per bushel out of their wheat, if fed, and receive the benefit of the manure on their land, which will yield ten to fifteen bushels per acre more grain with the same work, seed, etc. We would like to hear from the farmers (during the winter), in all portions of the Province as to numbers, feeding, and quality of same, so that we can arrange for handling them to best advantage when navigation opens in the spring. In conclusion, I would suggest that every influence be brought to bear on the Dominion Government to induce them to make an effort to have the senseless quarantine regulations existing between Canada and the United States removed, so that Manitoba and the Canadian Northwest may have the benefit of railway competition in shipping stock. - *Farmers' Advocate*.



GRASS HOUSE, HAWAIIAN ISLANDS.

Manager.—“That young friend of yours is a sleepy sort fellow. What shall I do with him?” Merchant.—“See you can't find room for him in the night-shirt department.”

“Folks is always makin' fun of de fellers dat de worl' calls 'has-beens,’” said Uncle Mose. “but it looks to me k it am a heap better fer a man to be a has-been dan to be nebber-was.”

Stranger.—“What a cheerless, dreary, depressing-looking building that is!” Native.—“Oh, that's only a school. Do you like fine architecture?” “I do.” “Wait till you see our new jail.”

“How does the idea of a 'corn banquet' strike you, any-ow?” inquired the goose, coldly sarcastic. “A corn banquet fills the bill,” clucked the old hen, pecking away with all her might.

Mrs. Wickwire.—“Don't you admit that most of your troubles are due to drink?” Dismal Dawson.—“Can't say but I do, mum. Fact is, till I took to booze nobody never had no sympathy fer me.”

Hicks.—“What would you do if you were a hunchback?” Hicks.—“Do? Why, I'd learn to ride a bicycle. Nobody would notice when I was on the wheel that I was more deformed than the other bicyclists.”

Nurse.—“Please, mum, you must send for the doctor quick for little Johnny.” Mistress.—“Horrors! What is the matter?” Nurse.—“I don't know, mum; but he hasn't been up to any mischief for two hours.”

Little Effie (who has stroked the kitten until she has begun to purr).—“Maudie, do you hear that?” Sister Maud.—“Hear what, Effie?” Effie.—“Why, I do believe kitty's coiling.”

Mrs. Carper (fretfully).—“Another button to sew on? It sew on buttons, and sew on buttons, and sew on buttons, from morning till night.” Mr. Carper (calmly).—“My dear, you ought to have married a rattlesnake.”

NORTH-WEST FARM LANDS FOR SALE.

The following choice lands in various parts of Manitoba and the North-West Territories are offered for sale at most reasonable prices and on favorable terms. Particulars may be had from, or offers of purchase made to the individuals as designated below.

DESCRIPTION OF PARCELS.				Man. or N.W.T.	Nearest Town or Post Office.	NAME AND ADDRESS OF PARTIES TO APPLY TO.
Parts of	Sec.	T. R.	E. or W.			
N W ¼	22	17 28	W	Man.	Fort Ellice	A. B. Harris, Birtle, Man.
N E ¼	2	8 20	W	Man.	Carrolton	J. Y. Bambridge, Souris, Man.
N W ¼	14	7 20	W	Man.	Carrolton	J. Y. Bambridge, Souris, Man.
S W ¼	6	13 17	W	Man.	Aikenside	John Sproat, Rapid City, Man., or John Cleghorn, Douglas, Man.
N E ¼	20	11 17	W	Man.	Douglas	John Sproat, Rapid City, Man., or John Cleghorn, Douglas, Man.
S E ¼	31	6 9	W	Man.	Beaconsfield	W. D. Staples, Treherne, Man.
E ½	16	1 15	W	Man.	Cartwright	Morris Watts, Cartwright, Man.
S W ¼ and W ½ S E ¼	23	12 5	E	Man.	Cook's Creek	T. J. McBride, Winnipeg, Man.
S E ¼ and S ½ N E ¼	14	4 5	E	Man.	St. Malo	T. J. McBride, Winnipeg, Man.
S W ¼ and S ½ N W ¼	17	9 5	W	Man.	Elm Creek	T. J. McBride, Winnipeg, Man.
S W ¼	4	1 15	W	Man.	Cartwright	Morris Watts, Cartwright, Man.
N E ¼	12	12 15	W	Man.	Petrel	R. F. Hay, Carberry, Man.
S W ¼	22	13 15	W	Man.	Osprey	J. A. McGill, Neepawa, Man.
S ½	24	6 10	W	Man.	Beaconsfield	W. D. Staples, Treherne, Man.
S W ¼	2	15 30	W	NWT	Moosomin	Colin McLean, Moosomin, N.W.T.
S E ¼	16	22 14	W 2nd	NWT	Fort Qu'Appelle	J. McNaughton, Qu'Appelle Station, N.W.T.
N W ¼	5	14 14	....	Man.	Osprey	J. A. McGill, Neepawa, Man.
N W ¼	20	5 14	....	Man.	Grund	Jas. Luncan, Glenboro', Man.
E ½	20	5 18	....	Man.	Langvale	Jas. S. Reekie, Boissevain, Man.
S E ¼	1	9 9	....	Man.	Indian Ford	W. D. Staples, Treherne, Man.
S W ¼	31	8 8	....	Man.	Indian Ford	W. D. Staples, Treherne, Man.
N W ¼ (with house and stable.)	28	14 25	....	Man.	Lucas	A. B. Harris, Birtle, Man.
N E ¼ (100 acres.)	26	17 27	W	Man.	.....	A. B. Harris, Birtle, Man.
N E ¼	15	4 8	W	.....	.....	A. B. Gunn, Manitou.
S. W. ¼	27	17 7	W	NWT	.....	R. S. Garrett, Grenfell, N.W.T.

Also wood lot No. 5, known as the N. ½ of the N. ½ of legal sub-division 11 and 12, in the N.W. ¼ of Sec. 14, T. 5, R. 8, W. A. B. Gunn, Manitou.

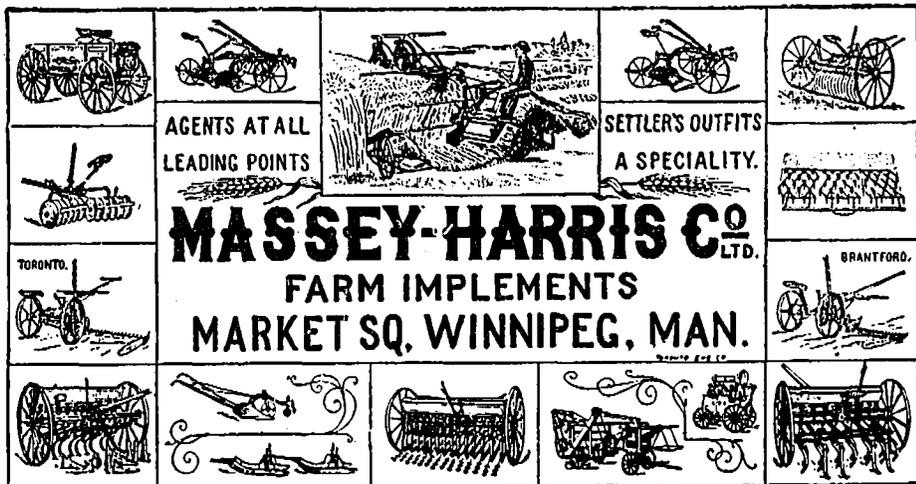
These lands are nearly all most eligible and convenient to Church, Market, and School.

DO YOU NEED REPAIRS ?

MASSEY-HARRIS Co. carry at all their warehouses a general assortment of repairs for the machines sold by A. Harris, Son & Co., the Massey Manufacturing Co., the Patterson Bro. Co., Massey & Co., Van Allen & Agur and Sawyer & Massey Co., but unless customers will make their wants known early in the season, and before repairs are actually required for use, disappointment and loss may occur in some instances.

The company is very anxious to meet all requirements, but their business is of such magnitude that unless repairs are ordered early extra expense for express charges and delays must necessarily occur. A little forethought on the part of customers would assist very materially in preventing disappointment and the expense of extra charges at the eleventh hour occasioned by neglect.

If you need repairs kindly take a memorandum of the same (and note the letter and number on the casting) and enquire at the company's nearest agency for the piece or pieces, and if they are not in stock leave your order with the company's agent who will send it to head office, Winnipeg, and the goods will be sent forward so you will receive them in good time. A great many customers postpone this very important matter until the day the goods are actually required. This should not be so, and we trust that customers will do their part to assist in this matter by exercising a little forethought as before stated.



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Massey-Harris New Steel Shoe Drill

ALL STEEL.



STEEL FRAME.

STEEL AXLE.

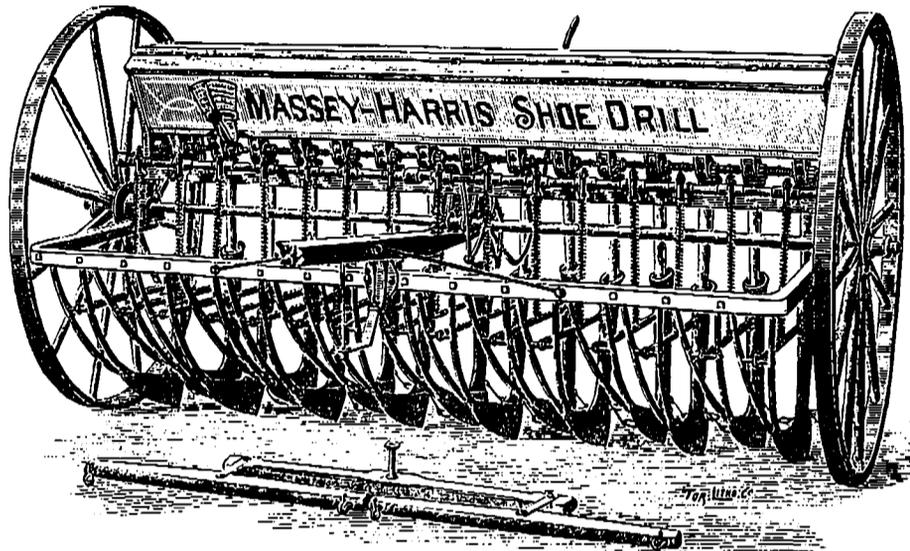
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STEEL SPRINGS.



ALL STEEL.



FRONT VIEW SHOWING ANGLE STEEL FRAME AND STEEL AXLE.

PERFECT WORK



IMPROVED FEED RUN

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PRESSURE

TEMPERED SHOES.

TRACKS 6 INCHES APART

CUTS CLEAN,

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WHAT YOU WANT



MADE IN TWO SIZES,

15 OR 19 SHOES.



WIDE RANGE OF WORK:

7 FT. 6 IN. FOR 15 SHOE.

9 FT. 6 IN. FOR 19 SHOE.



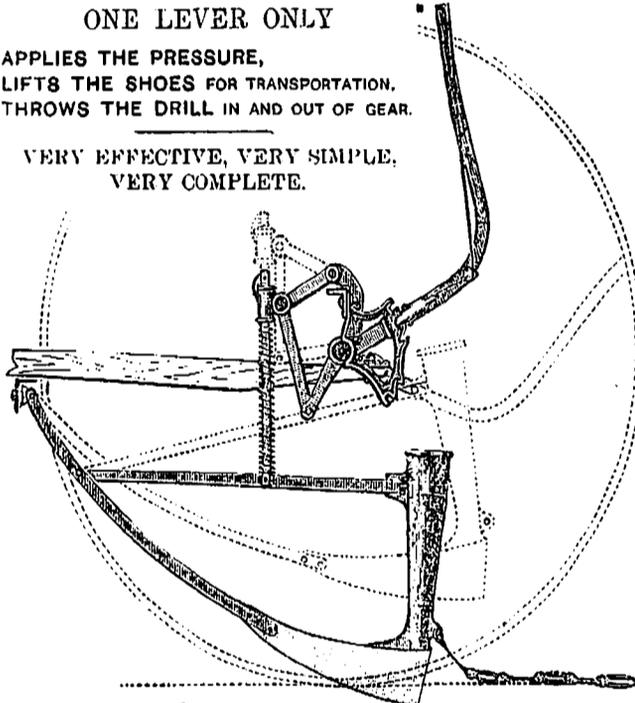
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15 SHOE DRILLS.



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APPLIES THE PRESSURE,
LIFTS THE SHOES FOR TRANSPORTATION,
THROWS THE DRILL IN AND OUT OF GEAR.

VERY EFFECTIVE, VERY SIMPLE,
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SIMPLE IN CONSTRUCTION.



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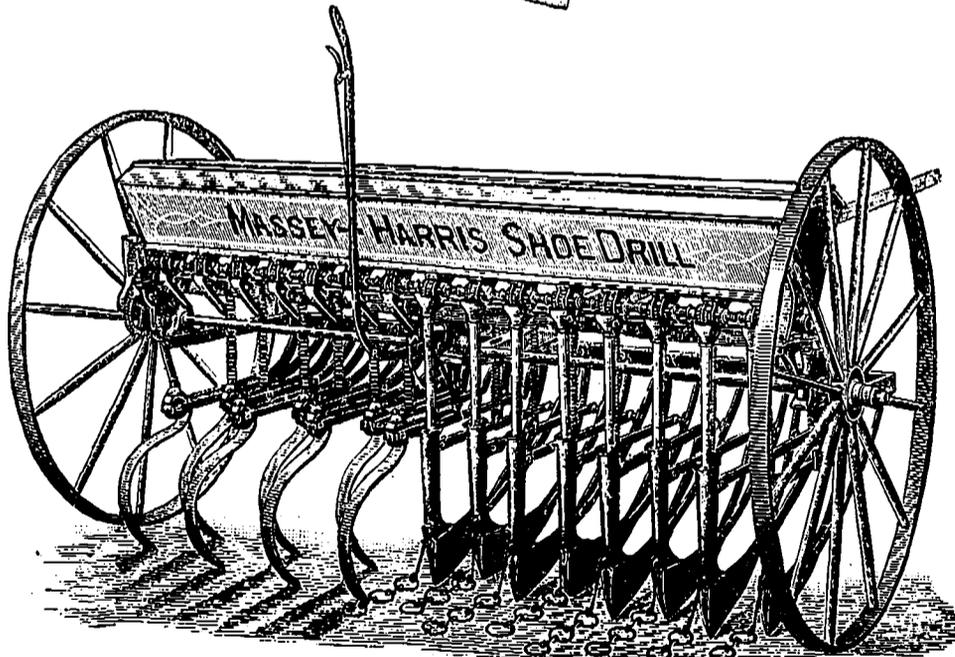
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MODERN PROGRESSIVE
FARMERS.

EVEN AND UNIFORM
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CLEAN, STRAIGHT,
TIDY WORK.



REAR VIEW, SHOWING HARDENED STEEL SHOES AND METHOD OF COVERING.

A PROFITABLE
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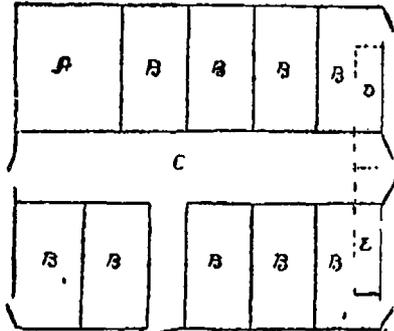
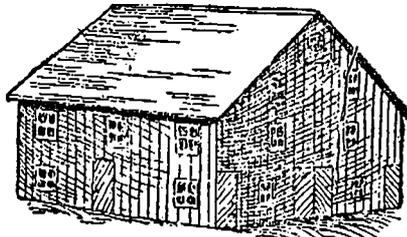
A MACHINE OF WHOSE
WORK YOU WILL
BE PROUD,
BECAUSE IT
SOWS EVENLY,
ACCURATELY,
AND UNIFORMLY

MASSEY-HARRIS Co., Ltd., Toronto, Canada.

Livestock.

Horse Barn.

THE horse barn shown in the following illustration is made of good lumber and the frame is of heavy, substantial timbers. It is 44 feet long by 36 wide. The corner posts are 18 feet high and the roof is well pitched. The whole



is well lighted with windows and proper ventilation is provided. Hay is taken into the mow by means of a fork. In the ground plan, A is a workshop 12 x 14 feet. B B are double horse stalls 14 feet from front to rear and eight feet wide. C is a feed and driveway running through the middle between the stalls and is eight feet wide. At one end are double doors and at the other a single door. F is leading from the interior to the outside. In this the stairway to the mow is placed. In the mow above the stalls and extending across the feedway are two bins, D and E, one for oats and the other for corn. These are connected with a covered scoop box on the first floor by means of a chute. The grain is thus always handy, and as the bottoms of the bins slope toward the opening in the chute, the contents all run out and are easily got at. The stalls, partitions, mangers, etc., are made of hard wood. The stalls are floored with two inch white oak lumber. The bins, sliding, flooring, etc., are of ship-lap. This barn will cost between \$600 and \$800 and holds 18 horses. Feed is near the horses and everything quite convenient.

Self-Leaning Cow Stall.

THE cow stall shown in the illustration is planned for a dairy farm, and will be found to be a great saver of labor in feeding and keeping the cows clean. In feeding, in place of troughs there is a smooth floor without obstruction,

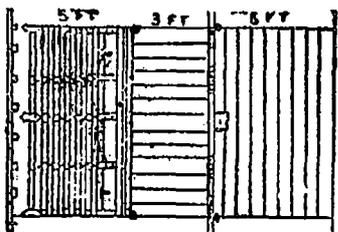


FIG. 1.—FLOOR OF SELF-CLEANING STALL.

running in front of all the cows, and five feet wide, and on the same level as the floors of the stalls, so the cows can feed without waste (Fig. 1). There are long narrow bins for grain, at close intervals, on the outside of this floor, so that the grain can be taken in a scoop and poured to each cow without carrying heavy loads from a distant meal room. The silage is shoveled into a wheel-barrow and is wheeled and dumped in front of each cow, the long level feed floor making this as easy as running a car

on a track. Above the cow stable is a room for hay and forage, which is all cut fine by horse power, and distributed over the room by a carrier attached to the cutter, which sits in the center of a long room. When used, after filling to one end, it is turned around and run until the opposite end is filled. There is a chute (a) between every other cow, and the cut forage runs down without the use of a basket or fork. The partitions are between every two cows, and are only three feet long, with a tight board floor of the same length. Back of this, extending to sills of stable, there is a trap door, the length that the stall is wide, and hinged to sill of stable, so as to raise up (Fig. 2), to get out manure. This door is made of three inch strips,

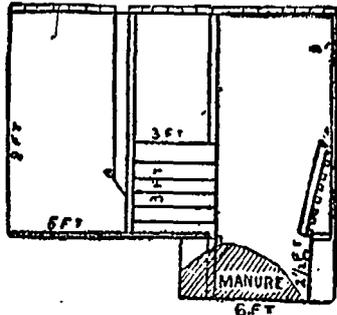


FIG. 2.—CROSS SECTION OF COW STABLE.

nailed to five 2 x 4 inch scantling, and one inch apart. This door has a space eight inches wide, immediately back of the cow's hind feet, for the manure to drop through; this space has a door, simply a board eight inches wide, which is hinged on the side farthest from the cow, and let down when the cows go in or out, and then raised and kept up for the manure to drop through, while the cows are in the stable. This space must be regulated to each pair of cows, which is easily done by using more or less of the three inch strips next to the solid floor. The cows stand with their hind feet and their back parts over the grating. The manure pit extends partly under the cows, and will hold more than a month's manure. The cows are held by stanchions built in front of the stalls.—*American Agriculturist.*

MANY young mares are ruined by being put to work, and worked too hard before their limbs are properly hardened.

THE training yard is to the colt what the nursery is to the child, what he learns there he will carry into his public performances.

GROWING pigs need a richer ration in winter than in summer, and one that will supply more animal heat. This seems a clear pointer toward the use of corn, and so it is. But do not feed exclusively on that, but add to it such other items as will develop bone and muscle in due proportion.

If you can raise one or two good colts each season, you may add materially to the profits of the stock department of your farm. But it will hardly pay to do it unless you have some good mares to start with. Poor mares bring poor colts, and these are not in any great demand. Be sure that the mares you breed are sound in body and limb, of a kind disposition, yet spirited and plucky. Then if you have used a good stallion you will be very apt to secure a colt that can be readily marketed.

The Poultry Yard.

Houses for Fowls.

HEREWITH are given some diagrams of convenient houses for fowls in the winter. Fig. 1, is a section across the house showing the nest

boxes, the shelf and ladder for the fowls to reach the roosts, and the roosts at the highest part of the house, where the air is the warmest. Fig. 2 is a brooding house showing the glazed

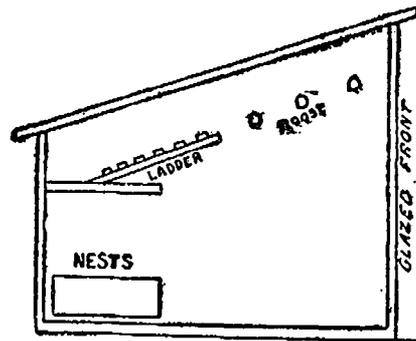


FIG. 1.—HEN HOUSE.

sloping front to catch the early sun and the pens for the brooding hens with the nests in them. The hens are shut up in these pens un-

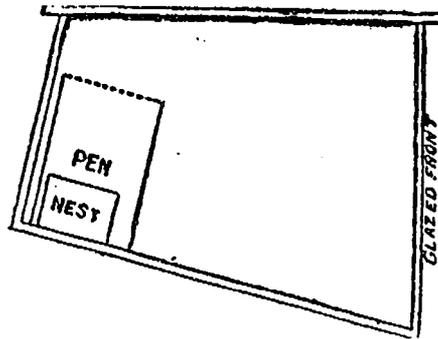


FIG. 2.—BROODING HOUSE.

til the broods are hatched, when they may be let out on the floor of the house. Fig. 3 shows a brooder or nursery for the young chicks in

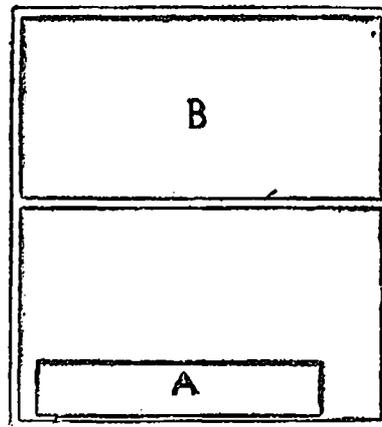


FIG. 3.—BROODER OR NURSERY FOR YOUNG CHICKS.

which the first hatched are kept warm until the whole brood is out. At A is a heater for hot water, and the place for the chicks is in the upper part, B.

SPEND your money for wholesome foods, not "egg foods" or other medicated foods. Cayenne pepper, when a little stimulant is needed, is cheaper and safer.

SIMPLE cases of swelled eyes and head in chickens and turkeys may sometimes be cured by injections into the nostrils and throat from a machine oil can of camphorated oil or coal oil, and the use of cayenne pepper in the food

Mrs. LISTER-KAY has recently exported the following birds to the United States: First Palace Buff Leghorn cockerel to Mr. A. D. Arnold, Dillsburg, Pennsylvania; second Palace Buff Leghorn cockerel to Mr. W. O. Moore, Merced, California; third Palace Buff Leghorn cockerel to Mr. W. H. van Marter, Petaluma, California.



How Paper Car Wheels are Made.

On all the first-class passenger cars paper wheels are used. The paper wheel consists of a paper core, or centre, between two steel plates one-fourth inch thick, bolted together through one flange on the iron hub and another on the steel tire, the flanges being on opposite sides of the wheel, so that the core cannot get out of place.

The paper used consists of good straw board. The sheets of millboard are laid on a table in piles, and have their upper surfaces pasted by boys, with ordinary flour paste. They are piled in lots of thirteen, and an unpasted sheet is put between the lots, so that the mass of paper readily falls apart into slabs a quarter of an inch thick in the drying room after coming from the hydraulic press.

Several of these slabs are then pasted together, put under hydraulic pressure of 2,000 pounds to the square inch and dried for a week or so at a temperature of about 120 degrees Fahrenheit. This is repeated until the resulting blocks contain 200 sheets of paper, the original ten inches in thickness of the paper as it came from the mill being pressed into a thickness of four inches, making it as hard as oak.

After the blocks are thoroughly seasoned they are faced and turned in lathes and forced by about 120 tons pressure into the steel tires, which are two inches thick and bored tapering one and one-half degrees. The hub is forced on with a pressure of about thirty tons; it is turned straight and three-sixteenths inches larger than the hole in the paper. The bolt-holes are drilled and the bolts forced in by steam hammers. The life of one of those wheels is from 500,000 to 800,000 miles; they are said to intercept vibration, and so prevent gradulation of the axles, etc.—*Philadelphia Item.*

A Telegrapher's Ruse.

On one occasion an operator started out from Fairfax station on a hand-car propelled by three contrabands to attempt to restore the line so that Pope's operators could communicate his whereabouts. Finding the line cut beyond Pohick Bridge, he spliced it and got signals from both directions. While so engaged a party of guerrillas emerged from the woods to the track and surrounded him. Bidding the negroes stand fast, he dictated a swift message over the line, which was being repeated back to him and copied as the Confederate leader leaned over his shoulder and read the significant words: "Buford has sent back a regiment of cavalry to meet the one from here and guard the line. If you are molested we will hang every citizen on the route." The instrument ceased ticking as the operator firmly replied, ". . . —" (O.K.). A painful pause ensued. The Confederate might have suspected a ruse if at the moment a gleam of sabers had not shone in the direction of Fairfax Court House. Hastily starting for the woods, the leader exclaimed, "Come home, boys; these yere ain't *our* niggers"; and they disappeared, while the hand-car, as if driven by forty contraband power, sped rapidly rearward.

Who ever gave us such a clear picture of Venetian life as this, in one of Phillips Brooks's letters to his little niece? The *Century* gives it:—

VENICE, August 13, 1882.

DEAR GERTIE: When the little children in Venice want to take a bath, they just go down

to the front steps of the house and jump off and swim about in the street. Yesterday I saw a nurse standing on the front steps, holding one end of a string, and the other end was tied to a little fellow who was swimming up the street. When he went too far, the nurse pulled in the string, and got her baby home again. Then I met another youngster, swimming in the street, whose mother had tied him to a post by the side of the door, so that when he tried to swim away to see another boy who was tied to another door-post up the street, he couldn't, and they had to sing out to one another over the water. Is not this a queer city? You are always in danger of running over some of the people and drowning them, for you go about in a boat instead of a carriage, and use an oar instead of a horse. But it is ever so pretty, and the people, especially the children, are very bright, and gay, and handsome. When you are sitting in your room at night, you hear some music under your window, and look out, and there is a boat with a man with a fiddle, and a woman with a voice, and they are serenading you. To be sure, they want some money when they are done, for everybody begs here, but they do it very prettily and are full of fun.

Railways of the World.

At the railway congress lately in session at St. Petersburg the railway mileage of the world

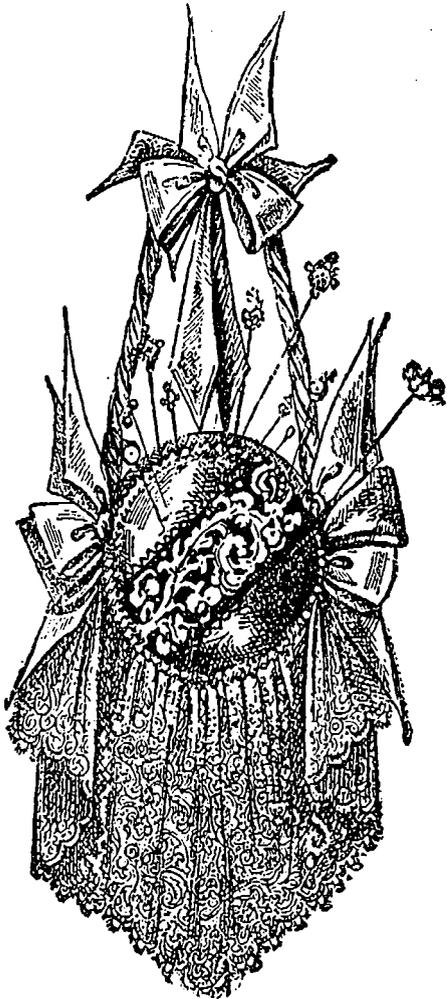
was presented in tabulated form. This showed that the total mileage at the beginning of this year was 285,805, of which 167,755 are in the United States, 14,082 miles in Canada and 5,625 miles in Mexico and the Argentine Republic. In Europe the German Empire comes first, with 26,790 miles, France second, with 24,310 miles, Great Britain and Ireland third, with 22,685 miles, and Russia fourth, with 19,345 miles. Wurtemberg and Denmark are the countries which have made the least progress in the construction of railways since 1886, while in Asia, apart from the 16,875 miles of lines in India, the Trans-Caspian line recently constructed by the Russians is 895 miles in length, the Dutch colonies have 850 miles of railway, the French 65 and the Portuguese 34, while there are 125 miles in China and 18 in Persia. In Africa the colony of Algeria and Tunis comes first, with 1,910 miles, the Cape Colony second, with about 1,880 miles, Egypt third, with 965 miles, and Natal fourth, with 311 miles; while the Orange Free State has 150 miles, and other minor States about 300 miles. In Australia the figures are 2,703 miles for Victoria, 2,275 miles in New South Wales, 1,645 miles for Queensland, 1,875 miles for South Australia, 515 miles for West Australia, 401 for Tasmania and 1,950 for New Zealand. These figures are from the latest obtainable statistics, and show a material difference from those heretofore given.





A Hanging Pincushion.

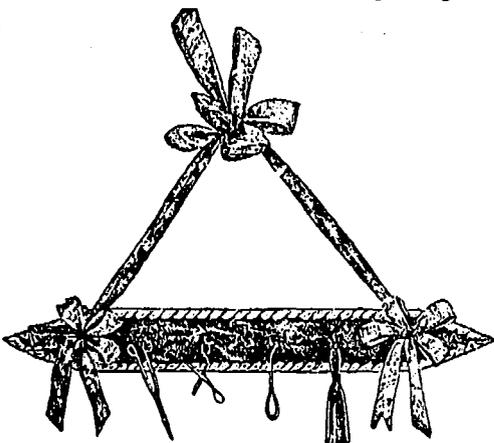
THE hanging pincushion shown in the illustration is used more especially for the "stick" pins now so fashionable, and for bonnet-pins, and is a most dainty addition to the toilet-table as well as a great convenience. The circular



is bound and faced with emerald green velvet, ornamented with a diagonal band of gold embroidery and fancy gimp. There is a graduated flounce of lace caught up at the sides with loops-and-ends of satin ribbon, corresponding with the one which hides the wall-hook and depending from the centre of the twist holder.

A Pretty Knick-Knaek.

THIS pretty knick-knaek is to hang beside the toilet table or dressing bureau. It is made of a single or thin board covered with green plush.



is bordered with a strip of gold braid; the ribbons are green satin, and small gilt hooks are placed along the board to hold toilet-scissors, button-hook, etc.

Umbrella Case.

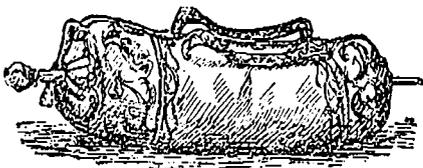
A CASE for umbrellas, combining neatness and usefulness in an unusual degree, is shown in our illustration. Get a thick wooden walking stick, which may be purchased for ten cents



or cut from the woods, and polished. Use a piece of cloth twenty-five inches long and about five inches wide, varying with the thickness of the umbrellas when rolled up, and with that of the stick. Slope it to about four inches at the bottom; seam up, and then with the machine stitch through the middle two rows, making a space in which the stick will fit snugly. The pockets on either side will hold the umbrellas. Bind at the top with braid, and finish at the bottom with rings, such as are used on the silk cases in which umbrellas are sold. For a gentleman, the middle pocket might be fitted to his walking stick, and all three be strapped up with shawls and rugs without danger of their being dropped out and lost, if tied tightly with ends of braid attached to the pockets. Waterproof cloth or brown denim are the most suitable materials.—*American Agriculturist*

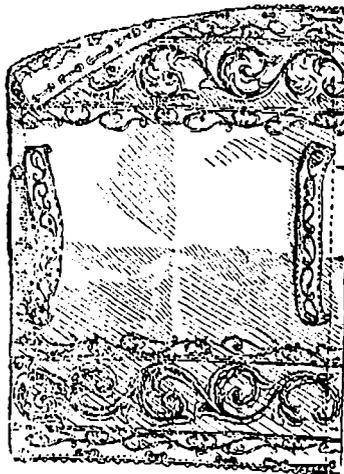
A Convenient Shawl Case.

ANY one who has once used a closed case or any description of hold-all will never again be content with a simple shawl strap. Besides keeping the wraps clean, the shawl case is the best place to carry a wrapper or dressing-sacque



for use in the sleeping car; one's slippers, also, and many odd things can find place in it.

The pretty case illustrated is made of a piece of strong canvas cloth, twenty-eight inches broad by thirty-two long. The sides are finished with a hem an inch and a half wide, provided with buttons and buttonholes at a distance of five inches apart. The inch-wide hems on the ends are studded with metal eyelets, as seen in the illustration, through which a cord is laced to draw together the ends. It is best to reinforce these hems with an interlining of thin leather or carriage cloth. A narrow crocheted edging of red, blue and brown zephyrs, to match the border finishes the ends. The border is four inches wide, and the pattern is worked in darning stitch with red and brown zephyrs; the outlines are couched with white cord put on with blue. A border of old-fashioned cross-stitch



would be pretty, or one of applique; and many materials are as suitable as canvas. Linen and pongee are both desirable; and dark blue or brown denim, with a bold design outlined in linen floss, would be handsome and durable.—*Demorest's Monthly*.

A Ribbon "Spare-Hand."



FOR the convenient little spare hand, seen at the right of the accompanying sketch, make a full bow with two ends nearly a yard long; sew a clasp pin at the back of the bow, and tie another one on each end in the manner shown by the larger figure at the left of our sketch. It is designed to be pinned to the belt or skirt, a little to the right, the ends falling freely at the side. It is used when sewing, to support scissors or shears, holding an emery cushion, a self-winding tape measure, or any little thing constantly needed. There may be three or four ends if desired. One made of pretty braid, tape or cord would be handy for a cook. Two holders or small oven cloths, might be attached, and removed when not in use. This contrivance will save many steps.

Hints to Housekeepers.

The table-cloth is doomed. The fashionable meal is served on polished mahogany. A napkin is spread at each guest's place.

Put old rubber rings into weak ammonia-water, and they will recover their elasticity. This is quite an item where much fruit-canning is done.

Never sun feather beds or pillows. Air them thoroughly on a windy day in a cool place. The sun draws the oil and gives the feathers a rancid smell.

To remove rust from kettles or other iron-ware, rub with kerosene and let them stand. Keep a day, then wash with hot water and soap; repeating if necessary.

Chamois leather may be cleansed by rubbing it hard with plenty of soft soap and letting it soak for two hours. Then rub it well with a solution of soda, yellow soap and warm water, rinse it, wring it thoroughly in a coarse towel and dry quickly. Pull it about and brush it and it will be all the softer and better for the process.

Be careful where you keep flour. Like butter, it absorbs odors readily. It should not be kept in a place where there are onions, fish, vegetables or other odorous substances, nor in a damp room or cellar. Keep it in a cool, dry, airy room where it will not be exposed to a freezing temperature, nor in one above seventy degrees. Always sift before using.

RICE AND CRANBERRY PIE.—Rice and cranberries make a dainty combination. Boil the rice carefully until tender; then cover liberally with rich milk, and to each pint add a tablespoonful of cornstarch wetted to a paste with a little cold milk. Let it boil up to thicken, salt slightly, and add sugar with discretion. It should be perfectly white, as thick as thick cream and only moderately sweet. Line a plate with rich pastry, put in enough of the prepared rice to make a layer half an inch thick, and cover this with a layer of cranberry jam, for which the cranberries must be stewed, strained through a colandar and generously sweetened. Cover the whole with a meringue when the pastry is baked.

If you have never tried to make anybody happy, you have no idea how far you are away from Heaven.

What would be the state of the highways of life if we did not drive our thought-sprinklers through them, with valve open, sometimes?

The man or woman whom excessive caution holds back from striking the anvil with earnest endeavor, is poor and cowardly of purpose.



A SLIGHT TURN.



WICKED YOUTH—Irish! Irish!



MURPHY (as he turns the head)—Phat's that?

A TERRIBLE SITUATION.

As the train emerged from a deep and rocky cut it glided out upon a long and high trestlework which carried the tracks over two ravines and a swamp. The man whom we all took to be a drummer for a sarsaparilla factory looked out and down and shuddered.

"A little nervous, eh?" queried one of the crowd. "Yes, and I have cause to be," was the reply. "Then you've been over this place before?" "Yes, two years ago. I feel as weak as a woman." "Did the train break through?" asked one of the group. "No. Ah! thank heaven we are over at last! All of you please take notice of that house among the trees, and also remember the little town we passed through about a mile back. My uncle Reuben lives there in that house. I was here on a visit to him and went over to the postoffice after my mail. I took the highway in going, but to make a short cut I took the track on my return. I hesitated some time at the trestle, but finally started to cross. Just wait a minute. I have it all down here in my note-book. When I tell a thing for a fact I like to have the proofs. The trestle is eighty-eight feet high in the centre. I had just reached the centre, when—"

"When you saw a train?" "Yes; I had reached the centre of the trestle when I heard the whistle of a locomotive, and a moment later caught sight of a freight train rounding the curve. There was only one possible way of escape."

"It was a terrible situation." "It was. I find I have it down here in my book as 'T.S.' which stands for terrible situation. Thank you, sir, for your appreciation!"

"You did not leap to the ground below?" "No, sir. If I had it would have been jotted down here, which it isn't. I did not lose my presence of mind. Dropping down between the cross-pieces, I swung with my feet and hung on with my hands. You can judge of a man's feelings with almost a hundred feet of space between his feet and a great mass of jagged rock."

"Great spoons! but you must have suffered a thousand deaths."

"Let me see. No, I did not. I have it down here, and I only suffered 750 deaths. I don't want to lay claim to 250 deaths to which I have no legal right. When I tell a story, I tell it exactly as things happened. I hung there swaying to and fro."

"And the train passed over you?" "Well, no, it didn't. I should have made a note of it if such had been the case. I hung there for seventeen long minutes—minutes which seemed never-ending to me."

"You lived a month in those few minutes." "Not quite a month. I have it down that I lived only twenty-six days, and I don't want anything that doesn't belong to me."

"But did it take the train seventeen minutes to pass over you?" persisted the inquirer.

"Oh, no." "Then how was it?"

"Why, the train side-tracked at the other side, you see and I hung on until one of the brakemen walked out to me and said if I wasn't in the circus business to stay, I'd better get out of that."

"But I don't exactly see." "Oh, there is nothing to see. I got off the bridge all right, with three hours to spare before another train came along. I was very much obliged to the brakeman—very much. I might have hung there all day, you know—yes, I have it down here in my book that I was V. M. O., which means very much obliged. I am not a nervous man by nature, but can you wonder that I shudder and grow weak in the knees whenever I pass this trestle?"

SETTLED.

Advertising man.—"What is that fight in the next room about?"

City editor.—"The managing editor and literary editor are having a fight over de word advertisement. One says it's ad-vert-ise-ment, de oder swears it's adver-tis-ement. You'd better go in and settle it."

Managing editor and literary editor (as the door opens)—"Say, how do you pronounce a d-v-e-r-t-i-s-e-m-e-n-t?"

Advertising manager.—"Ad. of course!"

A charity bawl—"Say, mister, ginune a nickel!" Anybody can see through people who make spectacles of themselves.

The man who can even pay his respects this year should receive proper credit.

"Johnny, is your father a firm man?" "Yes, mom, wen he knows he's wrong."

The cook-book recipe is too often like the disappointing novel. It does not come out right.

Workman.—"Is the boss at home?" New father.—"No; the nurse has her out for an airing."

Boarder.—"Is this genuine vegetable soup?" Waiter.—"Yes, sir; fourteen carrots fine."

A local dealer advertises "a new stock of walking-sticks for gentlemen with carved wooden heads."

The dentist who devotes himself to pulling aching molars is necessarily a pains-taking fellow.

Jagson says it's one thing for a servant girl to know her place, but quite a different thing for her to keep it.

"Jackson tells me the last thing he wrote was accepted. Do you know what it was?" "Yes, his resignation."

My son, observe the postage stamp—its usefulness depends on its ability to stick to one thing till it gets there.

He.—"Why do you regard marriage as a failure?" She.—"So many make use of it to get money belonging to others."

Customer.—"That's a queer shaped piece of pie. Looks something like a turnover." Waiter.—"No, sir; it's a left-over."

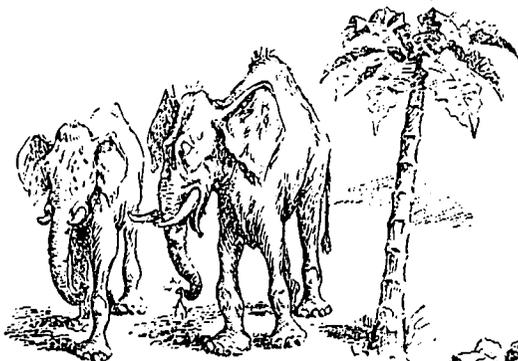
"I've half a mind to write a magazine poem." "All right. Half a mind seems to be about enough for that sort of thing."

Lady.—"Col. Blowton, how many battles were you in?" Col. Blowton.—"Madam, the true soldier never boasts of his deeds."

"Ya'as, Cholly gave her a piece of his mind when he met her." "It must have been a very small piece then, if he has any left."

It would probably be hard to convince a bantam rooster that his crowing doesn't have a good deal to do with making the sun rise.

The man who lets his wife split all the wood may mean well, but he shouldn't be allowed to do all the talking at a prayer-meeting.



GALLANTRY IN THE TROPICS.

Miss TRUNKERTON—Isn't this heat terrible, Mr. Tuskingham? Seems to me I never felt it so much as I do to-day!

Editor.—"No fire in the stove!" Printer.—"Here's sixteen poems on 'Passion.'" Editor.—"Shove 'em in and strike a match!"

"Do you enjoy football?" he asked of the man who sat next him at the game. "Some." "Are you a player?" "No. I'm a surgeon."

Herdso.—"When you get to be a man, are you going to be a lawyer, like your papa?" Dick Hiecks.—"Nope; going to be a good one."

Poet.—"I have called to learn what has become of my poem I sent you, entitled, 'The Brave Fireman?'" Editor.—"It went to the fire!"

AROUSED THE HIRED GIRL.

"Maria," said Simpkins, as he looked up at the sun streaming through the window, "do you suppose the hired girl has got up yet?"

Mrs. Simpkins listened for a moment, and not hearing anything breaking in the kitchen, replied "No."

"I'll call her," replied Simpkins, as he slipped out of and into the hallway and shouted "Hannah!"

But Hannah slept on, and Simpkins, after repeated prayers softly to himself and bruised the skin of his head knocking on the door. Then he came back and talked vigorously to Maria about hired girls and hers in particular.

"I'll wake her up," he finally said, gleefully, and then got out his 44-caliber revolver and broke his teeth getting the bullets out of two cartridges. Then he hustled again into the hallway and fired a salute at Hannah's door following it by another. In an instant he heard Hannah scream from the kitchen below. She was up and had been for half an hour. Consequently she it was who let the policeman, the baker and the milkman in at the front door and it took Simpkins ten minutes to convince them that had not murdered his wife. Maria, however, as soon as was visible, straightened things out, but somehow Simpkins feels that neither the hired girl, the baker, the milkman nor the policeman look upon him as a man of great brain power.

An Advertisement.—"Any one proving to my satisfaction that my cocoa essence is injurious to health, will receive ten canisters free of charge."

Mrs. Houser.—"What'd that furniture dealer say when you told him that mirror he sent up was cracked?" Houser.—"Said he'd looked into it."

Mamma.—"You careless boy! You've sullied your coffee over your new trousers." Benny.—"Well, there's plenty more coffee, ain't there?"

Actor.—"He can play 'drunken parts' better than any one in the profession." Manager.—"Yes, but the trouble is he is too fond of rehearsing."

Traveler in Missouri.—"I want to find the conductor who has charge of this train?" Trainman.—"Can't tell after we pass the next strip o' woods."

"Glorious! Old fellow, so her father said yes when you asked him?" "Yes." "How did you put the question?" "Asked him if he had any objection to me."

"I wonder how it was first discovered that fish was brain food?" She.—"Probably by the wonderful stories that men tell who go fishing."

"But how do you know that Fenderson is a fool?" "Why, they selected him as a jurymen in a murder trial without challenge on either side."

"Children are the sunshine of life," observed Wilkie. "Indeed they are. My son turns night into day for me. Sunrise for me is 3 a.m.," sighed Robinson.

Byers.—"What was your idea in getting vaccinated your rheumatic arm?" Seller.—"Economy of pain. Couldn't make the arm hurt worse than it did already."

"Do you think the baby really understands everything that is said?" Father.—"Yes, from the way he cries know he heard me speak of wanting to take a nap."

Nicks.—"What a curious acting chap Aberrate. Sometimes I think his mind cannot be right." Wicks.—"Don't you think it too bad to blame it on his mind?"

He.—"What about those new neighbors you called to-day?" She.—"Well, they said they had come to the village to avoid society and begged me to call often."

"How is Johnny getting along with his writing?" asked the fond parent. "Rapidly," replied the teacher. "I think he is already competent to write his own excuses."

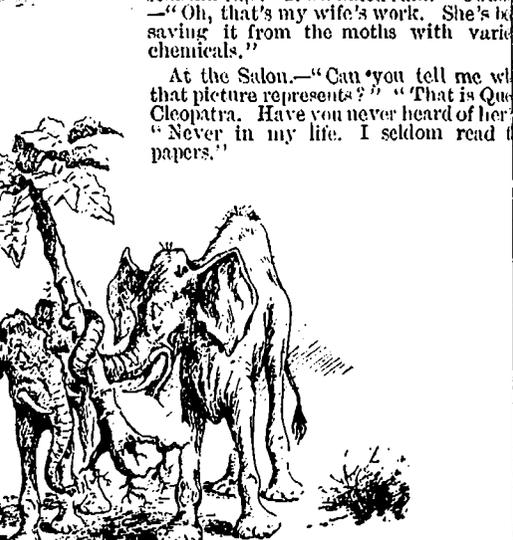
Tramp.—"Say, governor, you want get a medal from the humane society?" Gentleman.—"Through you?" Tramp.—"Yes. Give me a dollar and you'll save both our lives."

"Time is money," so they say, But it doesn't work that way. When a debtor, growing rash, Offers time instead of cash.

Bounce.—"What's the matter with your sealskin cap? It's a faded ruin." Jounce.—"Oh, that's my wife's work. She's been saving it from the moths with various chemicals."

At the Salon.—"Can you tell me what that picture represents?" "That is Queen Cleopatra. Have you never heard of her?" "Never in my life. I seldom read the papers."

Mr. TUSKINGHAM Allow me to hold this sunshade over you, Miss TRUNKERTON!



MR. TUSKINGHAM Allow me to hold this sunshade over you, Miss TRUNKERTON!

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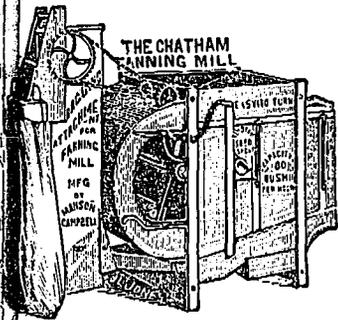
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McClure's Magazine, N. Y. (illustrated).....	monthly 1 50	1 60
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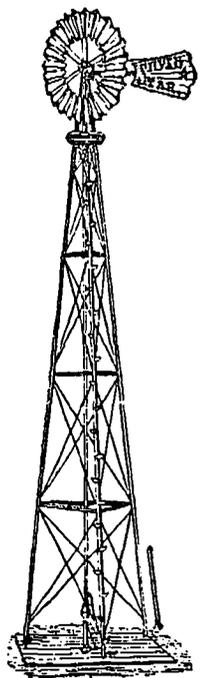
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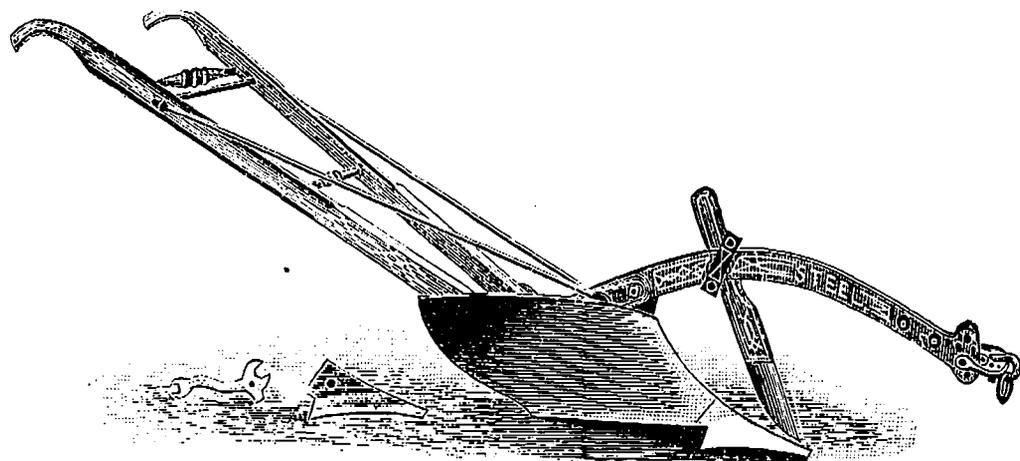
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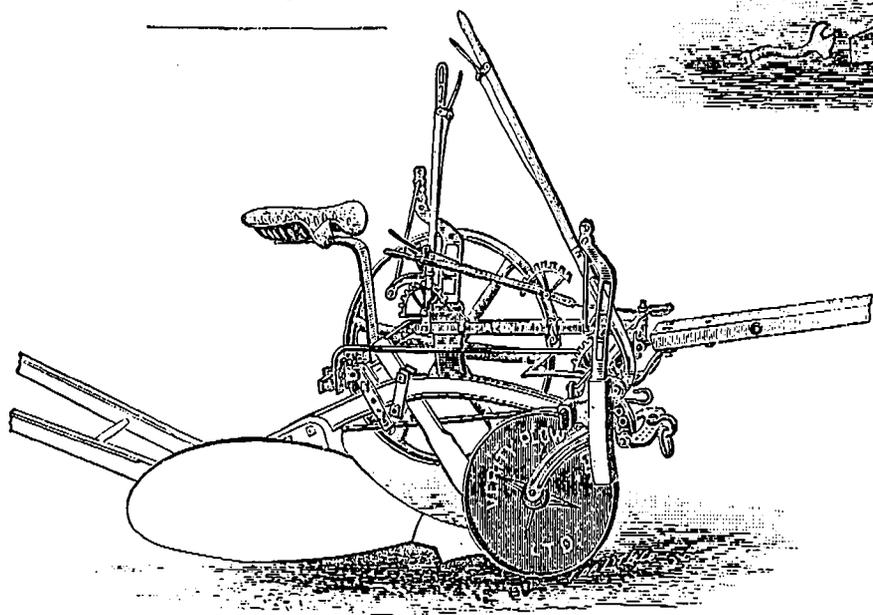
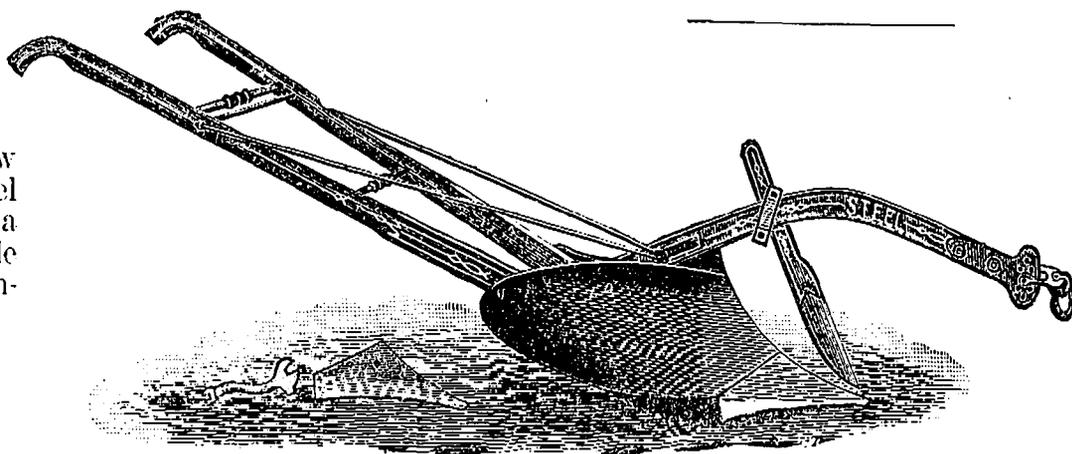


No. 4 A Plow.

This is in every sense a General Purpose Plow, and for general use has no equal. Easy to hold, of easy draft, and suited to all kinds of land. Will clean any kind of soil. Steel Beam, Steel Coupler, and best quality Soft Centre Steel Mouldboard.

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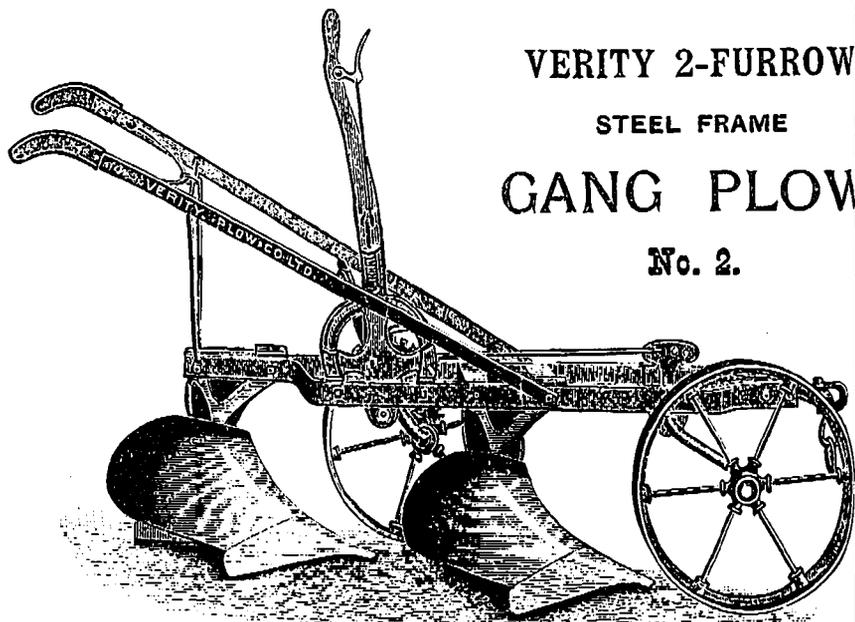
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- No. 13—Stubble Plow, with or without Skimmer.
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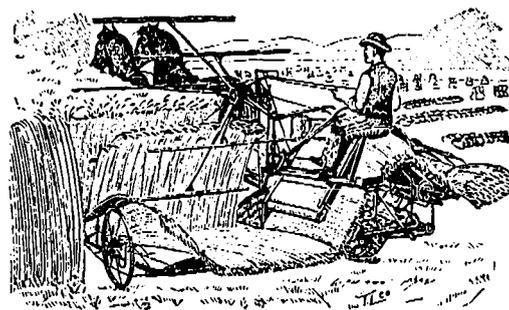
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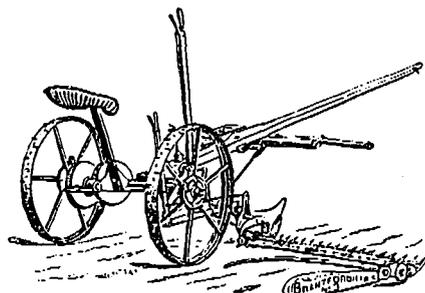
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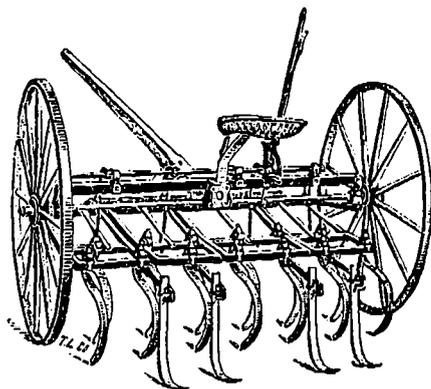
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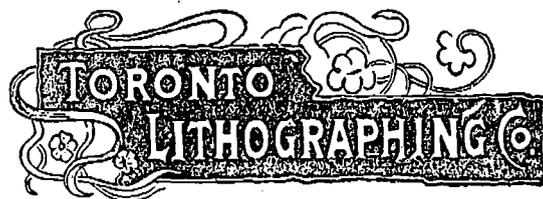
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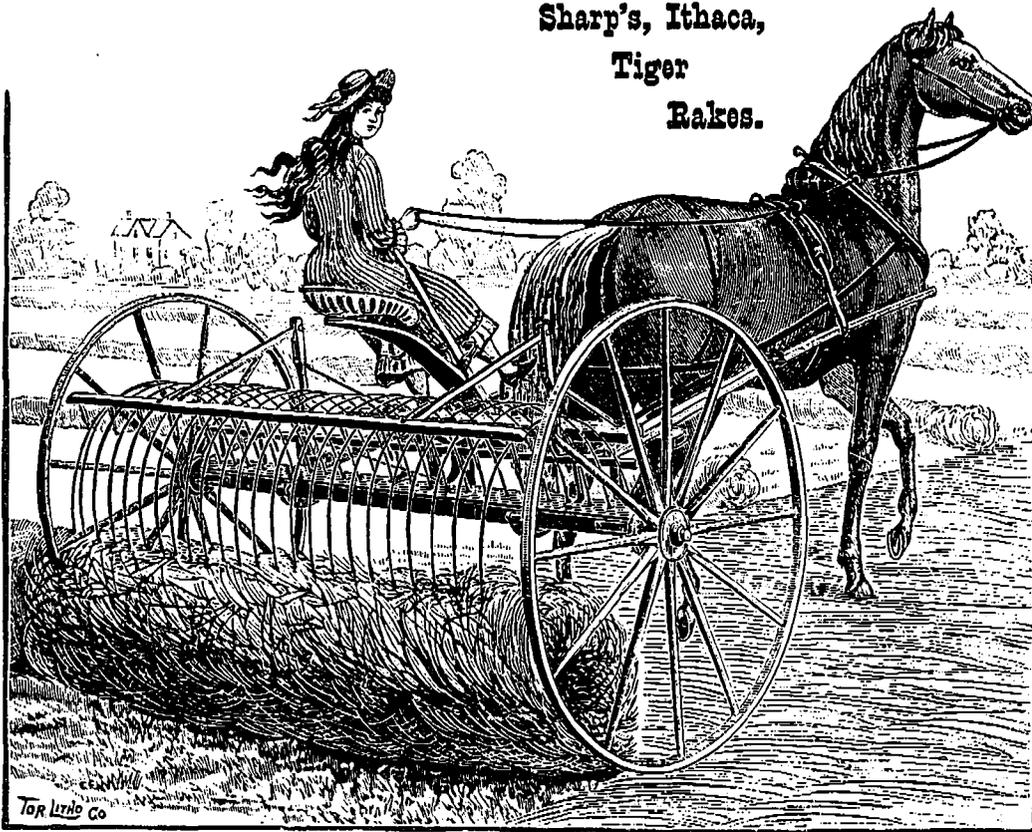


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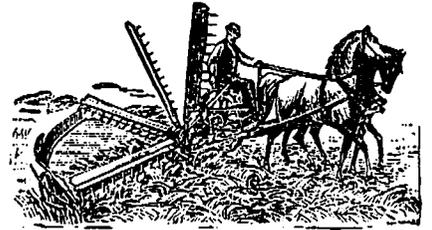
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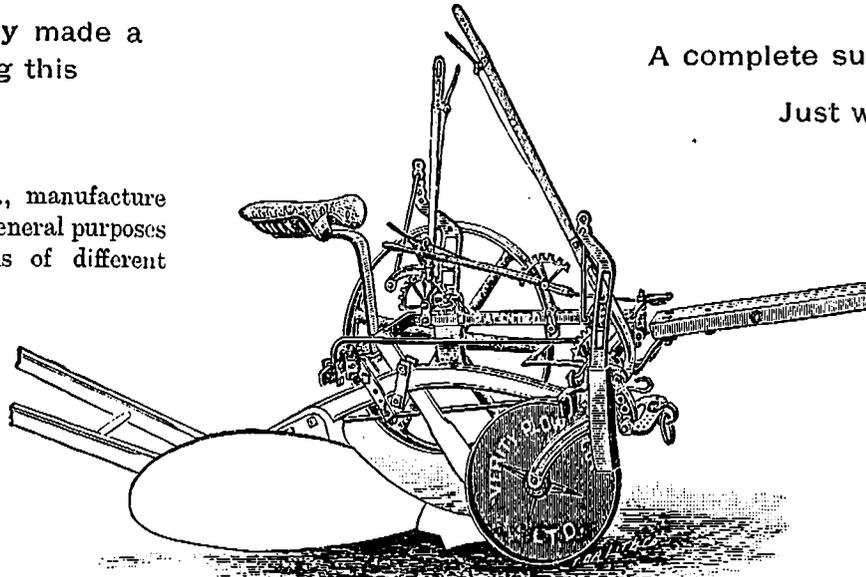
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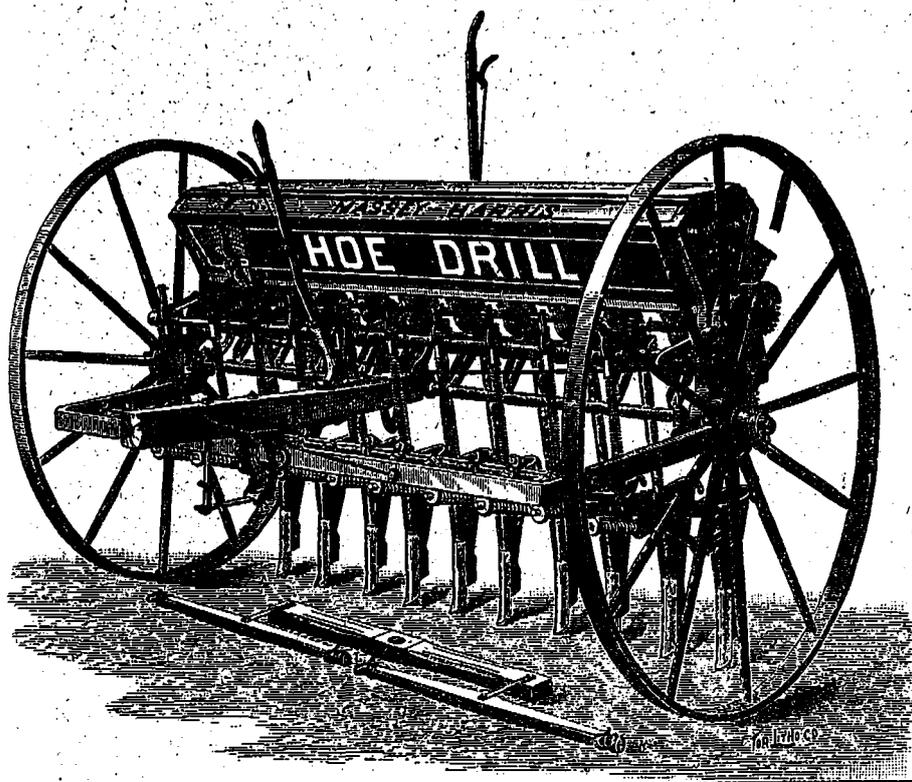
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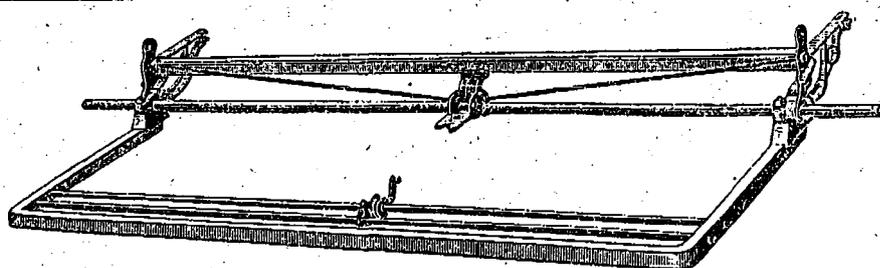


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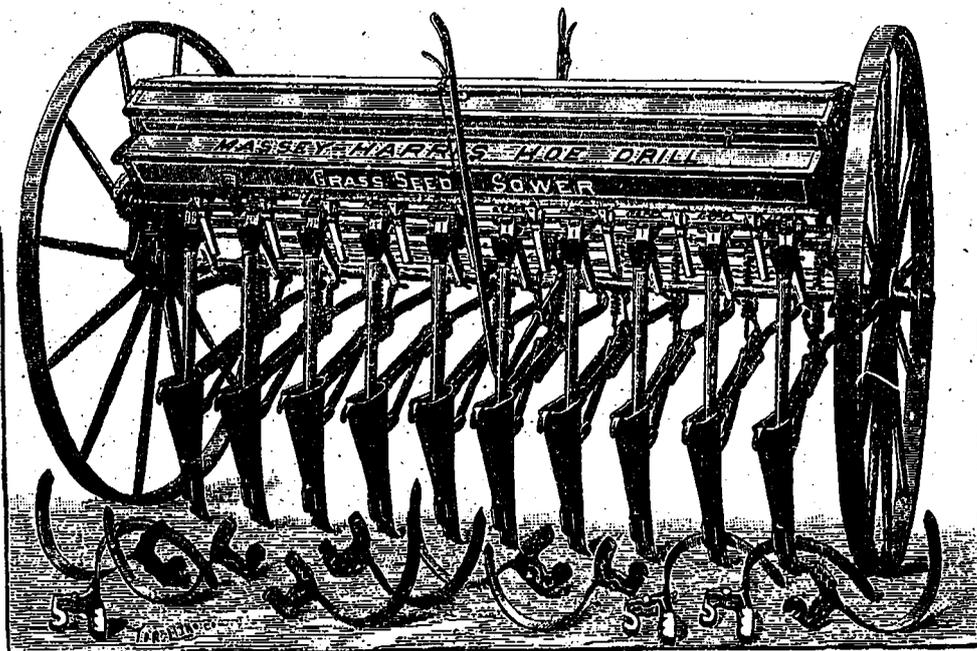
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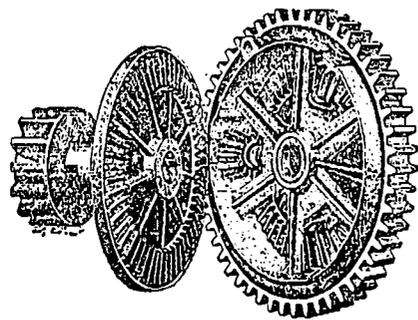
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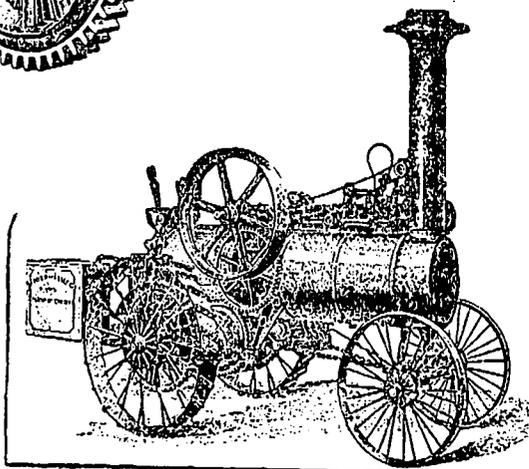
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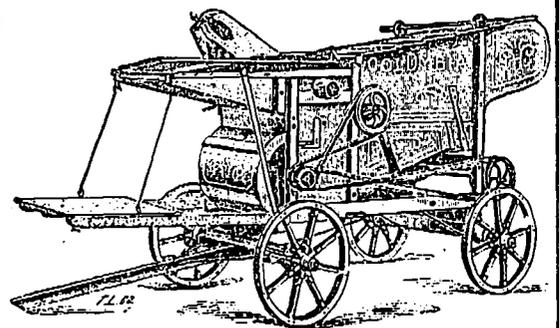


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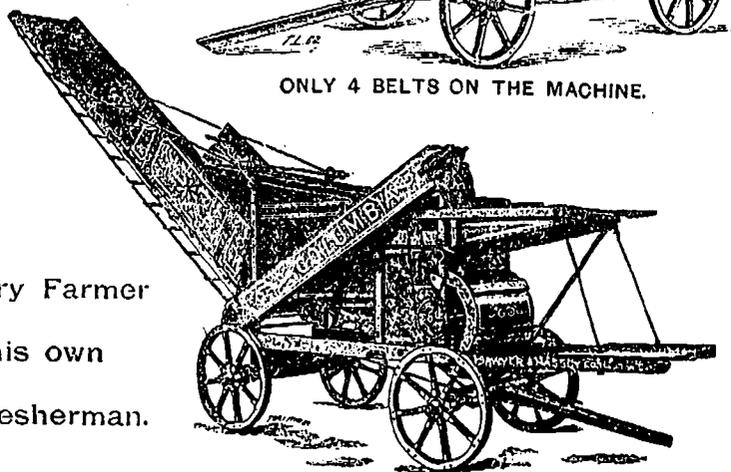
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