



NEW AND VALUABLE INVENTIONS.

We copy the following new inventions from the *New York Mechanic*, one of the best papers published in America. A specimen of the inventions may be seen at the General Patent Agency Office in New York, the rights of which, in whole or part, can be had at that office.

ORNAMENTAL COLOR PRINTING MACHINE.—This machine is calculated for printing paper-hangings, and picture ornaments in a great variety of colors and the most elegant designs, by a single simple process and operation. It is expected to color and print the ground and figure, working from twelve to twenty-four different colors, on a strip or roll of room paper of ordinary length in one minute. The probability is, that when this machine comes into full operation, such paper hanging as usually command one dollar to one dollar and fifty cents per strip, may be afforded from 25 to 37 cents. Any variety of designs and figures may be produced by one machine.

Door Lock.—This article, which is usually termed the independent door lock, is believed to possess an unusual degree of excellence, utility and safety, as it certainly does of novelty and simplicity. It is small, compact and plain, though somewhat ornamental; and without requiring the aid of a key, is evidently more convenient to manage, and at the same time more perfectly safe than any other lock in use, being capable of more than six millions of different positions, only one of which will unlock it; yet any person who understands its peculiar arrangement can unlock it with the utmost facility by day or night. They appear likely to come into immediate and extensive use, and as far as elegance, safety and convenience are consulted, supersede all others.

HORIZONTAL WIND WHEEL.—Latest improvement with bevel-gear. In this article the subject is brought to a degree of perfection which has no parallel. It really adjusts itself to the direction of the wind, regulates its own velocity, is secure from damage by gales, is put in motion and stopped with ease and facility, and produces more power in proportion to the quantity of sail employed than any other kind, and will operate machinery with a uniformity of motion nearly approaching to that of water power.

DOUBLE CAM AND RATCHET PRESS.—It has long been a desideratum with mechanics to find some method of applying an immense power with a continuous and uniform motion, without the expense and inconvenience of a multiplicity of gear, or the excessive friction of the screw. This is now accomplished by an arrangement of a double cam and ratchet, in a manner conveniently applicable to the pressing of cotton, cloth, or paper, hay or ground apples, or to the raising of buildings or other ponderous articles. This press is simple in construction, its motion is uniform, and its power is only limited by the strength of the materials of which it is made: with the ordinary proportions, however, it will give a pressure of a ton for every pound that is applied to the crank; thus the power of one man will produce a pressure of a hundred tons or more. It has also the important advantages of having the follower move up or down occasionally without the process of working the machinery by which the pressure is produced.

RAILWAY WATER WHEEL.—There are many situations in this country where available mill-streams are scarce, but where there are plenty of small streams descending from the mountains and hills. These may be made available for milling purposes by means of the Railway Water Wheel, without the expense of building a dam, or an elevated plume or pentstock. This water-wheel or hydraulic engine operates on an inclined plane parallel to the surface of the earth, and may be extended to a great length, thus accumulating an immense power from a very small stream. In this way a saw-mill or flour-mill may be operated by a stream that would pass through a two-inch aperture, and that would ordinarily be overlooked as entirely unavailable.

THE MOMENTUM RETAINER.—This machine is to be attached to one of the cars on a railroad train, and will occasionally stop the said train, yet retaining all the power which would otherwise be lost by the friction of the brakes, and holding the said power in readiness to be applied to give the train a forward motion when required; thus saving time, power, and the labor of those who would otherwise be employed in managing the brakes. The advantages that may be derived from a machine of this kind, will be at least two dollars per day in the saving of labor, fuel and time, besides contributing much to the safety and comfort of the passengers. An operating model has been exhibited to the officers of several Railroad Companies, and has met their decided approbation.

ARBITRARY BLOWING WHEEL.—It is generally known that many of the proprietors of forges, furnaces and of coal-burning steam engines have adopted a fan-wheel or blower in preference to bellows, for the purpose of producing the requisite blast of air. These fan-wheels produce a blast by means of the inertia and centrifugal force of atmospheric air, which is received near the axle of the wheel: and for this purpose they require an extensive surface and a violent motion. The recently invented Arbitrary Blowing-wheel on the contrary requires but a moderate motion, and not more than one-fourth of the ordinary size of the fan-wheel to produce an equal effect. One of these machines of a proper size for blowing a smith's forge occupies a space of only six inches square; and the inventor will guarantee that less than one-fourth part of the power required to drive an ordinary fan-wheel blower will produce an equal blast with the arbitrary blowing wheel.

THE SENSITIVE FIRE ALARM.—This is an elegant and very promising invention—a picture with frame and glass—yet so constructed as to ring a loud alarm bell whenever the air in the room becomes warmer than its ordinary temperature. It appears evident that if generally adopted they will prevent more than half of the ordinary damage by fires. Keepers of public and boarding houses will find it for their interest to patronize them, as boarders will give the preference to houses where the article has been adopted. They are simple in construction, elegant in appearance, and it is satisfactorily ascertained that they will command an extensive sale at more than double the cost of manufacturing.

CYLINDRICAL WATER WHEEL.—Is so constructed as to be operated by the weight or pressure of the water, without regard to its momentum, and will operate at least 90 per cent of the whole power of the water, which is more than three times as much as is usually obtained by either an under-shot or a reacting wheel. This wheel is compact, cheap and portable, and may readily be flowed to prevent freezing or being encumbered with ice in the winter; or may be made to run under water altogether. The floats project and recede alternately in such a manner that the water cannot escape but by the motion

of the wheel. The ordinary cost of building them will not exceed fifty dollars each.

REVOLVING ALMANAC.—This beautiful article combines more elegance and utility than any thing of the kind ever offered to the American public. It is a calculation for 8000 years, commencing with the Christian era, and extending more than 6000 years into futurity. It shows the day of the month or day of the week more readily than any other calendar, is convenient for counting time from date to date, and shows the rising and setting of the sun for the 1st, 10th and 20th of each month; besides being sufficiently elegant to ensure its adoption as a parlor ornament as well as a counting house manual.

THE DISTANCE REPORTER.—A small ornamental machine, to be attached to the axle tree of a carriage, midway between the wheels thereof, with which it communicates by wires. This machine is enclosed in a small brass box having a glass top, under which are three dials with indices. These indices will show the distance travelled by the carriage to which it is attached, from one rod up to two hundred miles. The cost of the machine complete is less than five dollars.

TRIANGULAR SHELLING MACHINE.—This is a light and portable machine, its entire weight being but 15lbs, yet it is very perfect in its operation, will shell 60 bushels of corn per day, leaving the corn whole and free from chaff, and depositing the cobs in a separate place. These machines are in demand at more than double the cost, and whenever they are introduced the ordinarily irksome drudgery of shelling corn is rendered an agreeable amusement.

SELF ADJUSTING CHEESE PRESS.—In this press no weight is required but that of the cheese itself; yet the pressure is continually increased, extending from four to near forty times the weight of the cheese during the process. The press is simple, cheap, compact and convenient to manage, and requires only to be seen to be approved.

WIND POWER FOUNTAIN.—This is an apparatus for supplying cattle with water in dry pastures, and where no elevated fountain head can be obtained. A capacious but not expensive reservoir is kept constantly supplied with water from a well, by an economical wind wheel and forcing pump, yet the water is never permitted to overflow and waste, neither to become stagnant; but a current is passed through the reservoir and returned to the well, whenever there is even a light breeze of wind. A watering trough is connected with the reservoir, from which it is supplied with water in such a manner that, although its capacity may be no more than two gallons, it never becomes empty nor ever overflows. Those who are accustomed to draw water from deep wells by hand for supplying a stock of cattle will readily appreciate this invention. On this principle a small reservoir placed in any part of a dwelling house may be generally supplied by a current of fresh cold water from the bottom of any well in the vicinity, and that without any waste of water.

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