NEW PROSPECTS.

WHITE'S ROCK AND COAL DRILL.

Fig. 1 shows a perspective view of the whole machine and Fig. 2 an isolated view of the working cam. A is a frame which is mounted on small rollers, a, that can be adjusted by screw rods, b. To each side of the frame, A, is an upright supporting piece, B, formed of an annular top plate, c, and two supports, d. Within each piece, c, a bar, C, is placed, and secured in the desired position by screws. C are slotted longitudinally near their middle, and a bearing, D, is fitted so that it can slide in the slot. D is a shaft which rotates in a. On the outer edge of C a rack, E, is placed, in which the teeth of a wheel fit, that is connected with the worm wheel, G, both of which turn loosely on the shaft, D. A screw, H, gears with G, and on the top of H is a small toothed wheel, I, that moved one tooth every time the cam, J, makes one revolution by the pin, K, passing between the teeth of I. The drill is fed to its work. On the shaft, D, a wheel or disk, L, is placed, and it is provided on its face with a cam, M. On D there is suspended a box which carries a carriage, N, O, on which are placed the rollers, m, that passing both sides the cam, I, cause the carriage to be moved back and forth by the cam. The drill, O, is secured in a frame in this carriage that is provided with a ratchet wheel at its end, so that the drill may be retained as it is worked. The operation is very simple. By turning the crank, J, the drill receives a rapid percussive and return motion, giving three blows to one rotation of the cam, and at the same time the drill is fed to its work and itself turned to cut the whole round. It can be advantageously used by farmers to remove rocks from the farm, and is so simple that any mechanic can construct it.

A really good drill is a great desideratum for mining purposes, and has long been wanted; one as arranged that it could be worked by hand or power as the size of the bore or the facilities of the mine or quarry enabled to be done. The subject of our engraving is such a machine, and is the invention of Lyman White, of Davenport, Iowa, the patent being granted this week.

A New Gold Discovery. The Melbourne (Australia) Express states that great excitement has been created at the celebrated Benaligg Diggings by the discovery that a conglomerate metal, very common, but which has been hitherto disregarded, will yield not less than 100 oz. of pure gold to the ton, with a very large percentage of silver. The analysis is as follows:—Zinc, about 45 per cent; iron, about 20 per cent; arsenic, about 15 per cent; other extraneous substances, about 9 per cent; gold, about 1 per cent; thus giving a result of 1 oz. of pure gold out of every 100 oz. of the conglomerate. It states that this discovery will treble the value of the rich mines of inestimable wealth.
MAJmIII "HAND PROPELLER." E. C. Brackett, of New.

I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to admit the blades, and to adapt itself to the blades, and to adapt itself to the motion of the blades.

ORE SEPAJUTOR-Wm. O. Bonrne, of New York City.

I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to adapt itself to the motion of the blades.

GAGE FOR MEASURING THE CURRENT OF AIR, OR WATER THROUGH A PIPE.-Ezra J. Wedge, of New York City.

I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to adapt itself to the motion of the blades.

SAILs-Joseph Francis Bronard, of Havre de Grace, Md.

I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to adapt itself to the motion of the blades.

FLUID-Victor Beanmont, of New York City.

I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to adapt itself to the motion of the blades.

THE OBJECTS OF THIS INVENTION IS TO FACILITATE THE LEARNING OF THE LOCATION AND FOR THE PURPOSE SPECIFIED.

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DRAIN Pipe MAHINERY.-Jones Duval, of New York City.

I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to adapt itself to the motion of the blades.

MACHINES FOR MAKING THE PREPARATION OF SUGAR.-Ezra J. Wedge, of New York City.

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I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to adapt itself to the motion of the blades.

DEVICES FOR SEPARATING THE CLEVIS TO THE SUBSTITUTE FOR AN OAR.-J. K. K.

I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to adapt itself to the motion of the blades.

REMOVING OBJECT.-Wm. R. Burdett, of New York City.

I claim, first, the employment of a horizontal post attached to the end of a vertical post attached thereto, and extending horizontally beyond it, and so hinged as to adapt itself to the motion of the blades.

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DERIVATIVE OF SUGAR.-J. K. K.

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chambers have hitherto been constructed of wood, but it is claimed that the invention will produce bricks of superior quality and durability.

Be prepared for the future by investing in the latest innovations. The future of construction is bright with opportunities for those who can see beyond the present limitations. The invention described here is just one example of how technology is advancing to meet our needs.

**The Scientific American**

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This invention is not only revolutionary in its design but also in its practical application. With the potential to transform the construction industry, it is clear that this is an innovation that cannot be ignored. The future of construction is bright with opportunities for those who can see beyond the present limitations. The invention described here is just one example of how technology is advancing to meet our needs.

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**The Scientific American**
New Inventions.

Clough & Burrell's Fly Trap.

We always thought that a light-house was intended either for war or for peace, or to show some friendly channel; but these inventors call their trap a light-house trap, and instead of being a guide to the mariner of danger, it is, with spider-like guiles, alters them to their death.

Our illustration shows one of these traps. The clockwork is in the base, from which rises the central column, which is covered with sand and on which the bait (mollusks and sugars) is to be spread with a sponge. A common spindle passes through the center of this and carries a platform on the top, from one side of which the catchers project downwards, close to, but not in contact with the sanded cone. On the top of this platform a cage, containing water in its base, is placed, into which the flies are attracted by the light, when started from their enjoyment of the sweets of life by the catcher. When the spring is wound up and the trap baited, the catcher and cage commence revolving around the sanded cone, and the flies are caught, made prisoners, and finally find a watery grave.

The inventors are J. S. Clough and Saml. H. Burrell, of New York, and the patent was issued this week. Any information or traps may be obtained from J. S. Clough, No. 231 Pearl street, New York.

New Farm Gate.

The extreme simplicity of this gate will recommend it to all who wish to have the carriage way to their house, or the entrance to their barn or drive, closed with a gate that can be opened by a person on horseback or in a conveyance without dismounting.

The gate, A, is swung as usual from a post, B, to which there is attached a framing that carries a grooved drum, C, and a double lever, D. At the end of the drum is a ratchet wheel, E, in the teeth of which a pawl, F, is kept by a spring, the ratchet being connected to a weighted lever, G, the tendency of which is to pull the pawl over the teeth without moving, C; but when the weighed lever is elevated by either rod, F or F', that depend from the post, G, G', and are connected by a chain, O or O', then the ratchet or grooved drum are rotated a quarter of a revolution, or the distance of one groove. In the grooves of C a slider, I, under a different arrangement, or a similar arrangement, on the end of a link that is hinged to B. The latch, H, is kept in the catches, / and /', according as open or shut, by a small spring, and the inside end of the latch is connected to the double lever, O, that is operated by one arm of a striking link and so elevating the latch when in one position, and by the other end of a striking and depressing the double bent lever, Y, that operates a pin on the other side of I, when the gate is in the position shown. As the grooves in C run in opposite directions, it follows that, on pulling the cord on one side the gate to open it, when the other cord is pulled it must close the gate, and vice versa. This gate is very durable; there is no sunk mechanism to get out of order or become clogged with dirt or frozen up, and by removing the pin which connects the lever, Y, to the gate, a common farm gate is made.

BOGGY'S FARM GATE.

There is nothing strange in its appearance to frighten cattle or horses. It is very easily constructed, and is cheap.

The inventor is W. T. Boggs, of Cincinnati, Ohio, and the patent is dated Oct. 19, 1858. He will be happy to furnish any further information concerning the invention upon being addressed as above.

SHERWOOD'S GRAIN BINDER.

This binder, the invention of Allen Sherwood, of Auburn, N. Y., can be attached to the platform of any reaper, and requires only the attendance of one man.

A reel of wire, A, is attached to the side of the harvester, and along the bottom of the supplemental or binding platform, B, a groove, H, is made, through which the wire is passed to the jointed arm, D, along cylinical in which the wire returns. We may as well describe the operation, by which the machine will be fully appreciated. The operator sits on the seat, S, Fig. 1, and taking the handle, I, of the jointed arm, D, in his left hand, he passes it over the collide, F, on the top of the side, B, and down to the position indicated by dotted lines on the platform. The grain is then raked on the platform, B, and the binder, by elevating the handle, I, rises the complete weight only about forty pounds, and it is constructed so as to be sold very cheap. The wire must be flexible wire and will not cost much, and can be used for other purposes when the grain is threshed. The sheaves can be easily unwired by a peculiar pull with a gloved hand, although they are not likely to remain fastened by any of the agencies of transportation from the field to the threshore. Any one can operate it after a little practice, and, with a little practice, to exterminate these diabolical blood-suckers. Our illustration shows a trap which not only catches but confounds and kills the insects who may happen to be attracted by its seeming innocence.

It consists of a box, A, in one end of which there is a common clock movement, which gives motion to the endless band, B. This band is moistened with a few drops of rum, or molasses and vinegar, and set in motion when the flies attracted to it are carried down into the body of the box, where a corregated or winged drum knocks them off into the bright tin drawer, D, that is half full of water, and the flies, being first stunned by the blow of the roller or drum and further confused by the intense light of the polished tin and the humming noise of the clockwork, quickly lose the power of resistance and drown in the water. When mosquitos are desired to be caught in the night time to keep the room clear enough to give us rest, a light must be placed opposite the glass front, C, in order that the light may be reflected by the polished tin and used to attract the mosquitos.

It is the invention of S. W. Smith and H. Rigby, and any further particulars may be obtained from the former by addressing him at 58 Broadway, New York. The patent is dated Feb. 19, 1859.

Inquest on Patents.

A discussion took place a few days ago, in the New York Academy of Science, on the question whether the Academy should pass an opinion on surgical appliances and apparatus which have been patented. Dr. McNulty contended that it was contrary to the spirit of the Code of Ethics of the National Association for physicians to obtain patents, and consequently that they should not act upon other people's patents. This sentiment met with much opposition, and the general opinion was that surgical appliances should come under a different arrangement, so that the former being usually invented, at least in part, by mechanics, who could not do without the patent. A resolution was brought forward by any of the dignitaries, to the effect that the consideration of no patented articles should be entertained by the Academy, for the time being.

We have received from the author, F. W. Evans, a very interesting account of the theory, practice, and sociology of the Shakers, together with a Life of Anna Lee.

American Scientific.

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