

## New Inventions.

## Value of Patents.

Mr. Amos Lyon, of Worcester, inventor of a very simple improvement in lightning rods, which we illustrated in our paper not long since, informs us that he has sold rights this year to the amount of between eleven and twelve thousand dollars. Stephen D. Carpenter, of Wisconsin, whose simple rotary pump we illustrated in No. 31 of our present volume, has realized about fifty thousand dollars this year from his invention. He was robbed in the cars, out West, not long since, of eleven thousand dollars cash—proceeds from his patent, we presume.

Who should be pleased to have inventors post us up from time to time, as to their sales and successes with inventions. Such items arrest the attention of capitalists and serve to enhance the value of every species of patent property.

## New Coal Burning Locomotives.

The Philadelphia *Ledger* states that the builders of locomotives, in that city, are busily engaged in constructing coal-burning locomotives. Baldwin & Co., placed a first class one of 25 tons, on the Mine Hill Railroad two weeks ago, and they have four others of the same character, nearly ready, for the Lehigh Valley Road, one for the Swatara Road, one for the Steubenville, and one for the Reading Railroad. It also says:—"From recent experiments made on one of the roads running from this city, with one of Baldwin's locomotives it appears that the expense is only about one half that of the wood-burners. A thorough examination is now being made of the matter, which will shortly be made public."

## Block for Forming Horse Collars.

The accompanying figures represent an adjustable block for stretching and forming horse collars, for which a patent was granted to J. Van Benschoten, of Poughkeepsie, N. Y., on the 3rd of last July.

Figure 1 is a perspective view, and fig. 2 is a longitudinal vertical section of the block, taken through the center.

A represents a cast iron plate which may be permanently secured on a table or bench. The front end of this plate is of semicircular form, and the sides of the plate gradually expand outward from the front to the back end. On the front end of the plate, A, there is a stationary jaw, B, of cast iron, secured to the plate or cast with it. The upper part of this jaw is of semi-circular form, and its sides are concave. C C are movable jaws made of cast iron. These jaws are of oblong shape, their back ends being rounded, and their outer sides or edges gradually expanding outward from their front to their back ends; the shape of the three jaws, when in contact as shown, correspond to the shape of a horse collar; the front stationary jaw, B, corresponding to the top end of the collar, and the two movable jaws corresponding to the lower part, the sides of the jaws being concave to correspond to the inner surface of the collar. The under surfaces of the two movable jaws, C C, are provided each with recesses or grooves, in which guides or ways on the upper surface of the plate, A, fit; these ways are placed obliquely on plate A, and gradually expand outward from the front to the back end of it.

D represents a screw rod which works in a bearing, e, at the back end of the plate, A. It is fitted between the lower parts of the two movable jaws, C C, and has a nut, E, upon it, to which nut two spring arms, f (one shown,) are attached, the outer ends of the spring arms being attached to the front ends of the movable jaws, C C, at their lower parts.

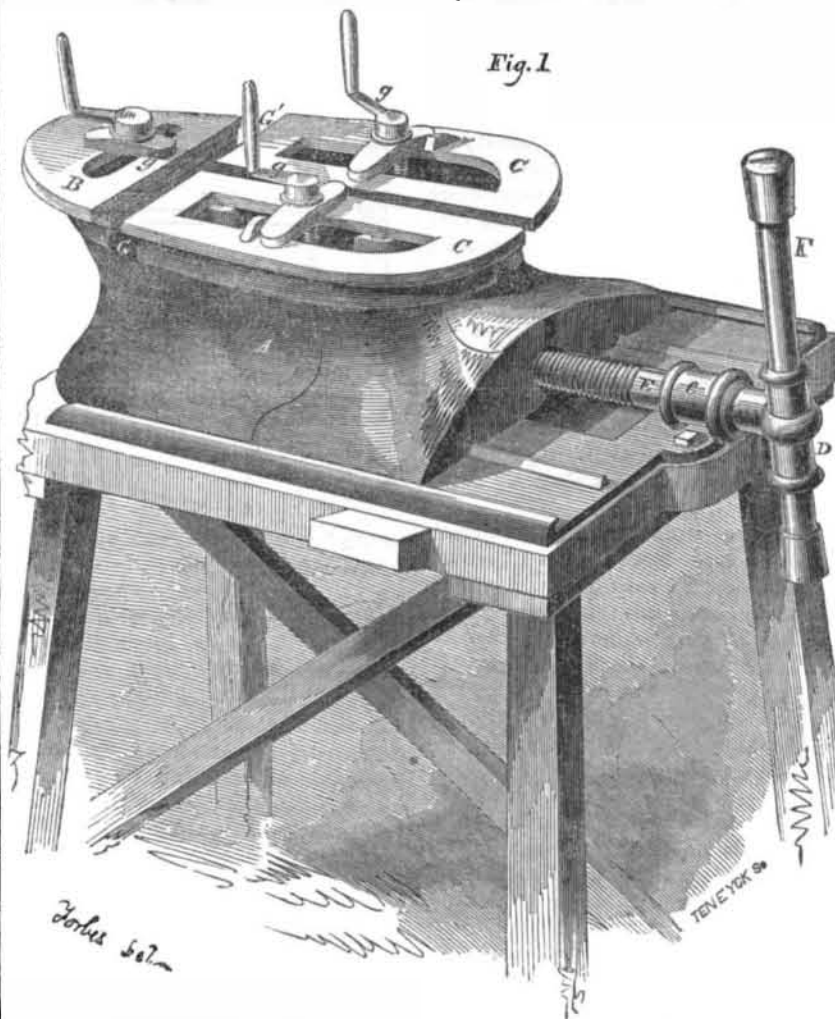
The outer end of the screw rod is provided with an arm or lever, F. On the upper surface of each jaw there is attached by a screw, g, one or more plates, h. These plates correspond to the shape of the jaw to which they are attached, and are for the purpose of increasing the thickness of the jaws, so that they may correspond to the size of the collar to be stretched or formed. These plates may be constructed of cast iron, and of various thicknesses, and more or less of them used, according to the size of the collar.

The jaws, C C, are moved up to the stationary jaw, B, by operating the screw rod, D, and the collar, represented by G, is placed over the three jaws, C C B, the screw rod, D, is then turned from left to right, and the two jaws, C C, are moved in consequence, backwards and outwards, and the collar, G, is stretched or formed to the desired size and shape. To the stationary jaw, B, at each side there is attached a metallic plate corresponding in form to the edges of the jaws. These plates form an

unbroken edge or surface all around the jaws when the jaws are distended.

By this arrangement and operation of the oblique sliding jaws, C C,—whereby they effect simultaneously the longitudinal and lateral stretch of the collar gradually and uniformly along either side of it through the greatest portion of its length, and towards its broadest end, where the capacity for stretching is greatest, while the narrow and front or upper end of the collar is firmly held by the stationary jaw,

## BLOCK FOR FORMING HORSE COLLARS.

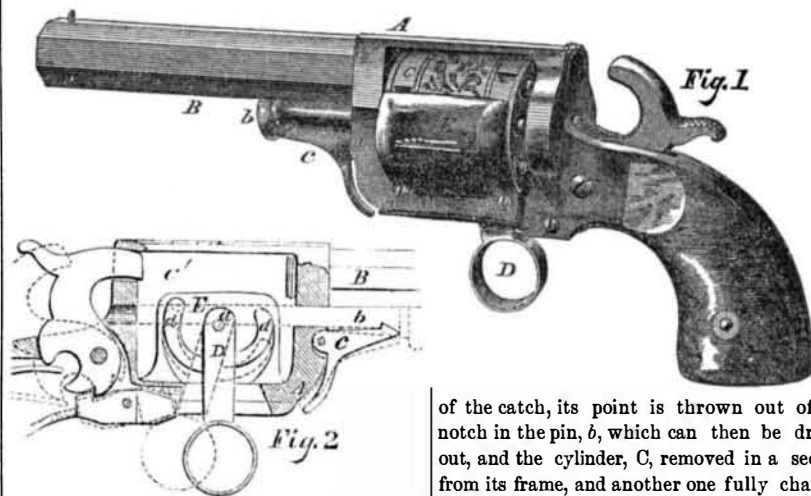


no undue pressure or stretch in any one part will occur. The stretching action laterally and longitudinally is smoothly and evenly effected by the longitudinal pressure of the oblique sliding jaws along either side of the collar, the form of which is better preserved, while the work is performed with increased facility. The arrangement shown and described of the operating screw nut, E, with the sliding jaws, C, by its attachment thereto by the spring arms,

f, it will be observed that the greatest freedom of action is insured to the sliding jaws, C, and that the screw nut having no other bearing than that on the screw rod, presents no restriction whatever to the lateral as well as the longitudinal, and free and independent actions of the two oblique sliding jaws on their ways.

More information may be obtained by letter addressed to the patentee at Poughkeepsie.

## NEW PATENT REPEATING PISTOL.



The accompanying engravings represent Beal's patent repeating pistol, manufactured by E. Whitney, of Whitneyville, Conn.

Fig. 1 is a perspective view, and fig. 2 is a longitudinal vertical section, through the lock, and revolving charge cylinder to show how the latter is operated.

A is the frame which supports the stock. B is the barrel with its breech passing through and shutting with a gas joint against the charge cylinder, C. b is a steel pin passing through an orifice in the center of the cylinder, C, into the plate behind it, and serves for the axis of the charge cylinder. It is held in place by a spring catch, c. By pressing on the lower end

of the catch, its point is thrown out of the notch in the pin, b, which can then be drawn out, and the cylinder, C, removed in a second from its frame, and another one fully charged inserted as quickly. E in fig. 1, is a small plate secured to one side of the frame, A, and conveying part of cylinder, C. In fig. 2 the inside of it is shown on which is secured a vibrating double armed ratchet, d d, which is connected by a pin, a, to the upper part of the finger of trigger, D. There are a row of notches on the outside of cylinder, C, near each end, and the ratchet points, d d, operated by the trigger, D, take into these notches alternately, and rotate the charge cylinder, to bring the loaded chambers successively opposite to and in contact with the barrel, B, to be discharged. The hammer or dog head is held on cock by a vibrating catch beneath it; this is set free to

strike the caps on the back of each charge chamber, by pulling on the trigger, the thimble of which is thus made to press on one end of the hammer catch, as shown by the dotted lines fig. 2, and thus set it free to strike the cap.—This is the most simple and convenient repeating pistol that has as yet been brought to our notice. An extra charge cylinder can be used owing to the very simple method of changing it. When the hammer is cocked, or half cocked, the cylinder can be revolved without releasing the hammer, as it is in all cases revolved by the forward and backward motion of the trigger, which vibrates the ratchet, d d. It can be loaded with great rapidity, and by having two such small cylinders as C, it will enable a person to have fourteen shots always ready, and in a very small compass.

More information may be obtained by letter addressed to the manufacturer, at Whitneyville.

## Easy Prevention of Yellow Fever or Cholera. Recipe for making Chlorine.

The following has been published by a number of our exchanges as a means of preventing yellow fever:

"Take five ounces of common table salt and one ounce of the peroxyd of manganese. Stir these together until they are well mixed, and then pass the mixture through a glass funnel, (a little at a time, for fear of choking the tube,) into a wine or porter bottle. Take then half an ounce (by measure) of sulphuric acid, and add to it three ounces of water. Pour this also into the bottle and shake it moderately, (without tipping it so as to separate the ingredients) and chlorine will soon begin to issue from the bottle in sufficient quantities to disinfect the atmosphere of a room. After an hour or two, it can be removed to another room, and so on until every room, shed, out-house, &c., has been purified. It is, however, thought to be sufficient to confine it to those rooms that are constantly inhabited. It is well to shake the bottle three or more times a day."

[This is indeed a simple method of generating chlorine gas, which is a most excellent disinfectant, but a more simple method is to purchase a pound of the chloride of lime at any of the druggists, and put a few ounces of it on a saucer, then pour a little vitriol into it, when the fumes will at once be seen to arise, and infect a large space filled with noxious vapors]

## Reapers in Texas.

A gentleman in Texas, writing to his correspondent in this city, asking information as to the best reapers, and some other agricultural implement, says, "I shall prefer those substantial, durable, and perfectly constructed, to any inferior article, without regard to price. The great fault, I find, in making implements for farming purposes, is, that cheapness is consulted rather than quality. I think our country will, in a few years, produce wheat and flour for export."

It is a fact worthy of note, that a large district of country in Texas produces the finest wheat, and the same lands are surpassed by none in the United States for the production of cotton.

## Protecting Wrought-Iron Pipes.

One of our constant readers—Jacob Hake, of Grand de Tour, Ill.—writes us that he is desirous of obtaining some wrought-iron pipe,—like gas pipe—for a deep well, if it can be prevented from rusting. He applied to various persons for such pipe, but none were willing to warrant them protection from oxydation in water.

## Preserving Green Vegetables.

One of our exchanges says that green beans, green peas, and roasting-ears may be had every day in winter at a very trifling amount of trouble by being packed away in salt. The salt is removed by steeping in warm water. This plan can be easily tested.

## Patent Case.

In this city on the 23rd ult., a motion by J. Stimpson for an injunction to restrain M. Brooks from using a machine to turn pianoforte legs, was denied by Judge Nelson.

The Pope's Government at Rome has made an annual appropriation of \$10,000 for the encouragement of tree planting in the Papal States.