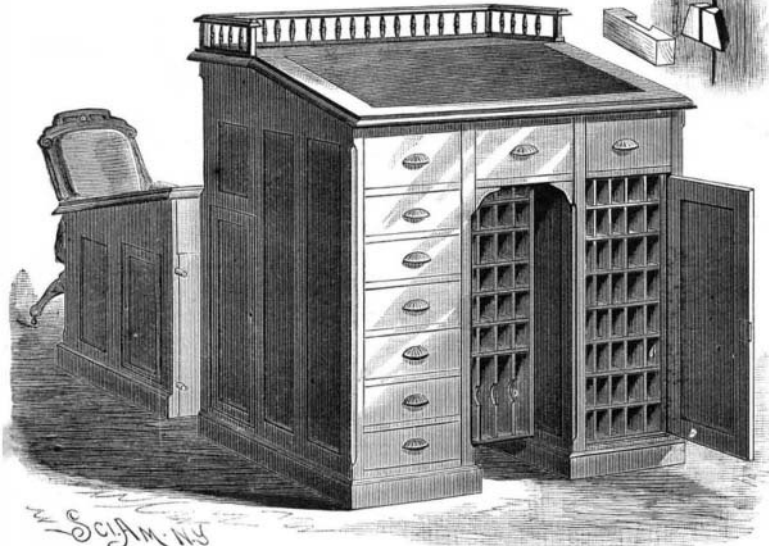


IMPROVED DESK.

The invention herewith illustrated consists of a standing desk and a sitting desk held together by suitable devices in such a manner that they can be disconnected when desired and used singly. The standing desk has an inclined writing top of the usual kind, and in its front has drawers at one side and pigeon holes at the other. In the center opening is a sliding frame containing pigeon holes and book shelves. The sitting desk has drawers at one side and pigeon holes at the other, and its back is made plain. The upper part of the back of the standing



POHL'S IMPROVED DESK.

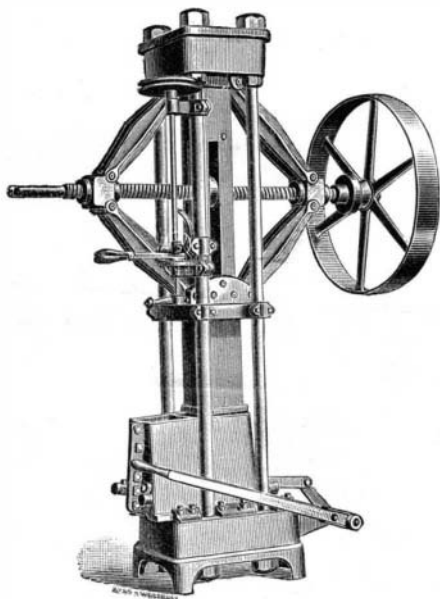
desk has drawers at each side, and between which is a recess formed with shelves. When the desks are united, the upper part of the standing one forms a top above the other. A half wedge is secured on the outer surface of each partition of each desk at the rear edge; the desks are held together by a dovetailed key (shown at the right in the engraving) passing over the wedges. Dowel pins projecting from the back of one desk enter holes in the back of the other. When united, the desks are placed in the middle of the room so that both can be used; when disconnected, each can be placed against the wall.

This desk is the invention of Mr. Henry U. Pohl, of Hiawatha, Kansas.

HOP PRESS.

It is well known that a combination of the screw and knuckle joint will produce an almost unlimited power. Presses using this combination have been made for many years by the well known Boomer & Boschert Press Company, of Syracuse, N. Y., who, having made a specialty of their manufacture, have adapted them to an infinite variety of purposes, among which is the subject of our illustration.

This press is used for the compression into small packages of hops, mint, catnip, sage, etc. The box has two compartments, so that while the material in one is



BOOMER & BOSCHERT PRESS CO.'S HOP PRESS.

under pressure the other is being filled. It is of sufficient depth to hold five or more cakes in each compartment, the cakes being separated by plates, so that each cake is subjected to pressure five or more times. The box is moved so as to bring each end alternately under the plunger by the lever and connecting links shown. Each movement of the box leaves one of the pressed cakes in a depression in the base of the press. When run by their automatic power attachment, it is claimed from 600 to 900 cakes can be made per day of ten hours by one man.

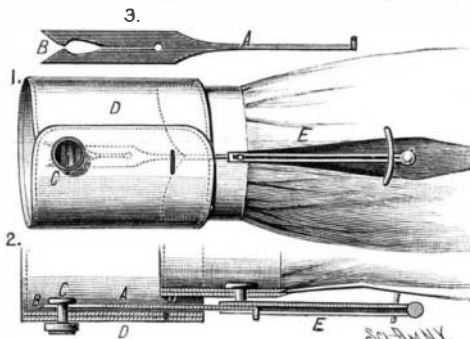
Blasting Coal with Lime.

With respect to the compressed lime cartridges which are now used in a good many collieries, it may be said that the lime is in a caustic state, made from mountain limestone. This is ground to a fine powder, and consolidated by a pressure of 40 tons into the form of cartridges $2\frac{1}{2}$ inches in diameter, having a groove along the side. These are then packed in air tight boxes to protect them from the damp, and are sent to the mine. Shot holes are drilled in the face of the coal, and an iron tube half an inch in diameter, having a small external channel or groove in the upper side, and provided also with perforations, is then inserted along the whole length of the bore hole. This tube is inclosed in a bag of calico, covering the perforations and one end, and has a top fitted on the other end. The cartridges are inserted and lightly rammed, after which a small force pump is connected with the tap, and a quantity of water equal in bulk to the quantity of lime used is forced in. The water, being driven to the far end of the shot tube through the tube, escapes along the groove and through the perforation, and the calico, flowing toward the tamping into the lime, saturating the whole and driving out the air before it. The tap is then closed to prevent the escape of the steam generated by the action of the water on the lime, and the flexible pipe attached to the pump is disconnected. The action of the steam first takes place,

cracking the coal away from the roof, and this is followed by the expansive force of the lime. There is no fire or flame, and the coal is got with a very low percentage of small.—*I. and C. Trades Review.*

IMPROVED CUFF ADJUSTER.

This cuff holder is so made that the cuff can be readily moved in or out, and will be held securely in



STUYVESANT'S IMPROVED CUFF HOLDER.

either position. Upon the outer end of the thin sheet metal bar, A, is formed a spring catch to engage with the shank of the stud, C. The rear end of this bar is fitted to slide in the grooved piece, E, as shown. To the outer end of the grooved piece, on the side opposite the groove, is secured the shank of a button. To use the device the spring catch is made to engage with the shank of the stud, the button is passed through the holes in the wristband, and the grooved piece is passed up the shirt sleeve and confined by a loop. The cuff can be held in any desired position by adjusting the sliding bar, the friction in the grooves being sufficient to hold it firmly.

This invention has been patented by Mr. Robert Stuyvesant, of 2 Pine Street, New York city.

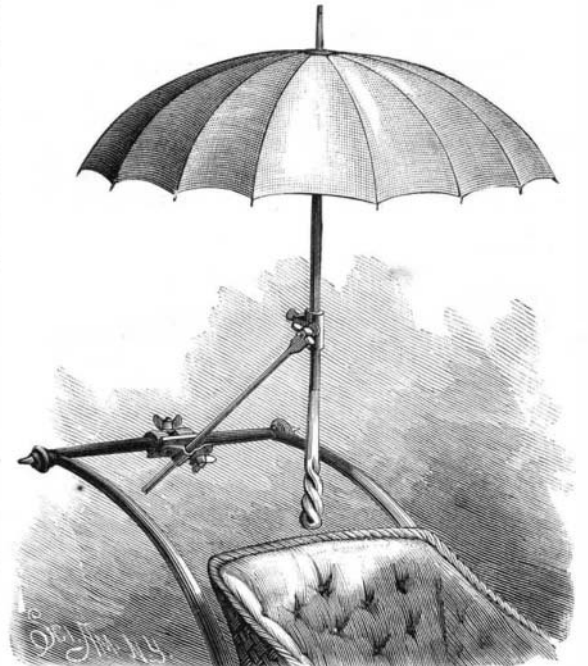
Minneapolis Industrial Exposition.

The industrial exposition which opens at Minneapolis on the 23d of August next is among the first of the large expositions held in the Northwest. Both the site and time have been well chosen. The remarkable industrial development of Minneapolis, particularly in the fabrication of food products, will attract a large attendance. Hon. W. D. Washburn is president of the exposition.

PARASOL HOLDER FOR CHILDREN'S CARRIAGES.

This simple device, to be attached to children's carriages, is designed for carrying a parasol for the protection of the person pushing the carriage. On the cross bar of the handle of the carriage is a sleeve, which can be held in any desired position by a wing nut. One side of the sleeve is made flat, and on this side is pivoted an arm, the free end of which is formed

with a curved slot through which passes a wing bolt. The arm is also formed with a socket for receiving a rod, which can be clamped in any position. The staff of the parasol passes through a clamp held to the upper end of this rod; this clamp can be turned and held at any desired angle. It will be seen, that by means of this device the parasol can be secured in any required position. The parasol and rod can be easily re-



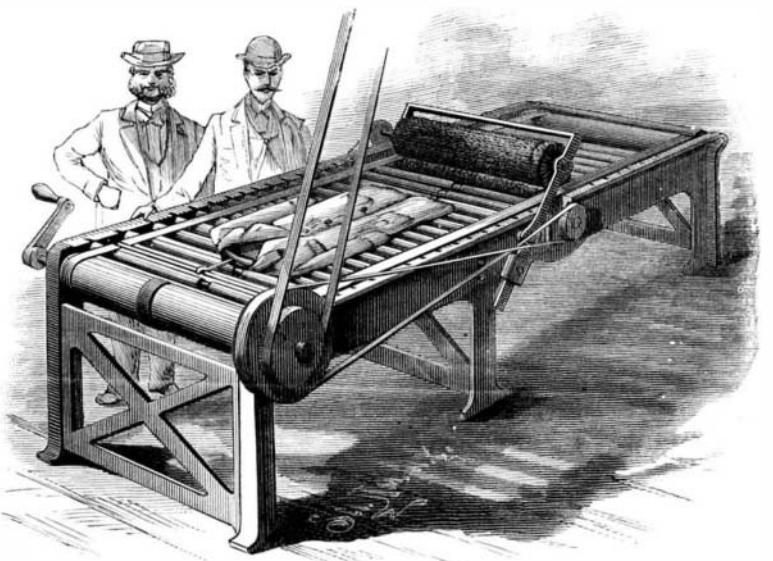
WARD'S PARASOL HOLDER FOR CHILDREN'S CARRIAGES.

moved when it is necessary to use the carriage without the holder. This invention has been patented by Mr. Robert Ward, of Lawrence, Mass.

BRUSHING MACHINE.

The engraving represents a machine for rapidly and thoroughly brushing garments of all kinds. Rollers are journaled in each end of the frame, one roller having a crank handle on one end and two belt pulleys on the opposite end. Over these rollers pass two endless belts which are united by cross rods, each having a bend at the middle. The upper parts of the belts run on a series of rollers journaled in the side pieces of the frame, and each provided with an annular groove at the center. The belts are kept taut by a roller resting upon their lower parts. A brush, which can be raised or lowered as required, is so journaled in the frame that its surface projects slightly above the tops of the rollers. This brush is driven by a belt from one of the end pulleys. On the outer surface of each side piece of the frame is pivoted a lever, the upper ends of which are united by a bar and the lower ends are provided with balancing weights. Between the upper ends of the levers is pivoted a brush, the shaft of which carries a pulley on one end. A belt from this pulley passes over a pulley on the shaft on which the levers are mounted, and the latter pulley is driven by a belt from the shaft of the lower brush.

The operation is, briefly, as follows: The main drum



BEKOFSKY'S BRUSHING MACHINE.

is revolved either by hand or by a belt. The coat or other garment is placed on a coat hanger bar, and placed on the rollers in such a manner that the hook of the bar catches on the bend of one of the cross rods. The garment is pulled between the brushes, which brush it thoroughly on both sides. The upper brush swings up more or less as the garment passes. When the coat hanger bar reaches the driving drum, it is disengaged automatically.

This invention has been patented by Mr. V. S. Bekofsky, of Jenchuan, Corea.