(No Model.) 2 Sheets—Sheet 1.

F. CRICH.

WIPE BOX FOR WIRE GALVANIZING APPARATUS.

No. 306,675. Patented Oct. 14, 1884.

Fig. 1.

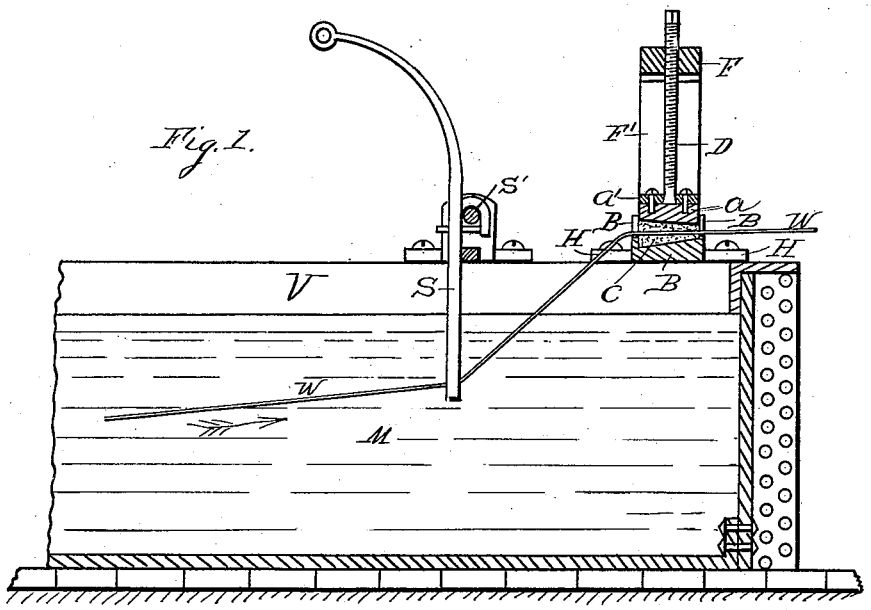


Fig. 2.

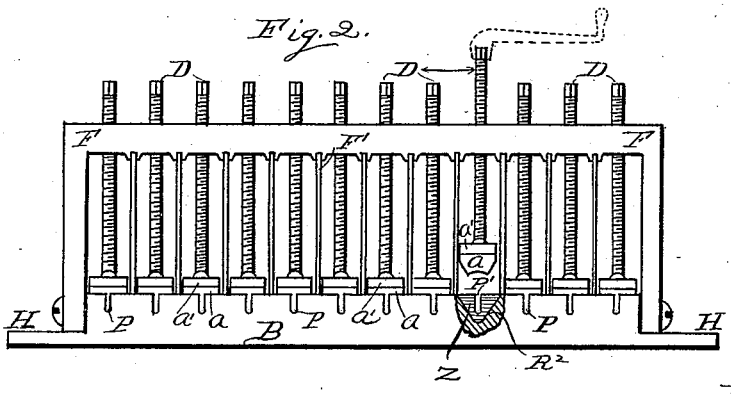


Fig. 3.

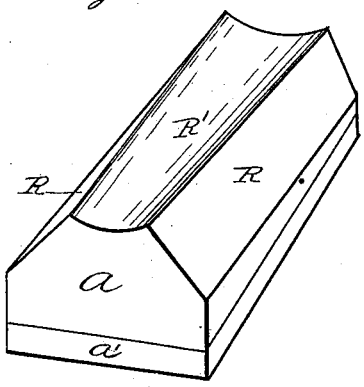
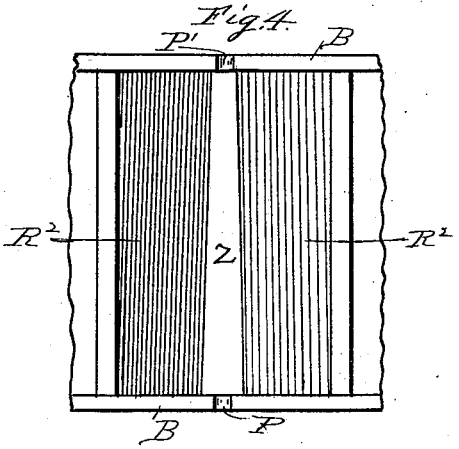


Fig. 4.



Witnesses.

Thos. H. Hutchins

Thos. J. Hutchins.

Inventor.

Frederick Crich.

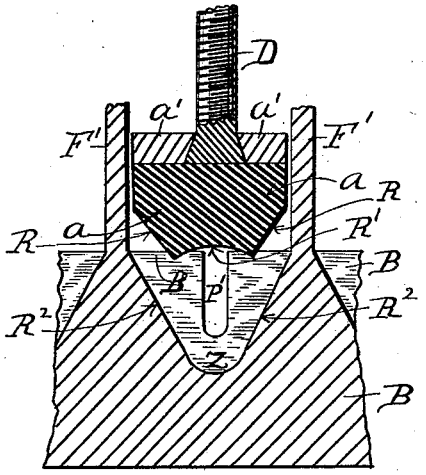
(No Model.) 2 Sheets—Sheet 2.

F. CRICH.

WIPE BOX FOR WIRE GALVANIZING APPARATUS.

No. 306,675. Patented Oct. 14, 1884.

Fig. 5.



Witnesses.
Thos. H. Hutchins.
Wm. J. Hutchins.

Inventor.
Frederick Crich

UNITED STATES PATENT OFFICE.

FREDERICK CRICH, OF JOLIET, ILLINOIS, ASSIGNOR OF ONE-HALF TO THE ASHLEY WIRE COMPANY, OF SAME PLACE.

WIPE-BOX FOR WIRE-GALVANIZING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 306,675, dated October 14, 1884.

Application filed December 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK CRICH, a citizen of the United States of America, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Wipe-Boxes for a Wire-Galvanizing Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a central vertical section; Fig. 2, a front elevation; Fig. 3, a perspective view of one of the followers or heads *a* inverted to show the form of its lower side, and Fig. 4 a plan view on the top of a bottom of one of the compartments; Fig. 5, a central vertical cross-section of the follower and its corresponding cavity within the bed-plate.

This invention relates to certain improvements in wiper-boxes for a wire-galvanizing apparatus; and it consists, particularly, in the construction and operation of the parts which wipe and clean the newly-galvanized wire immediately on its emerging from the bath.

Referring to the drawings, F is an upright frame, which is supported by and is firmly bolted to a bed, B, Fig. 2, which is supported across the top of the vat V by means of the step-plates H H, to hold it firmly in position. The uniting of frame F and bed B forms a rectangular frame, which is divided vertically into a series of compartments by the partitions F′. (Shown in Fig. 2.) Each one of said compartments is separate from the other, and a wire to be galvanized passes through each compartment. The bed B is continuous under all the compartments, and is depressed at the bottom of each compartment to form the two inclined sides R^2 R^2 and channel Z, which run parallel with the length of the vat V, as shown in Fig. 1, the rear end of the channel Z being highest, as shown in said figure. The two sides of the bed B are provided with vertical slots or notches P at each end of the channels Z at each compartment for the wire W to be drawn through. These sides assist to hold in the wiping material between the head *a* and bed B. These slots P are long vertically, to permit the wire to be depressed with the wiping material when pressure is applied to it. Each compartment is provided with a separate follower or head, *a*. (Shown in Figs. 1, 2, and 5.) Fig. 3 shows one of these heads or followers inverted to show the form of its lower side. It is formed with converging sides R R, to correspond with the inclined sides R^2 R^2 of the bed B, and also has a longitudinal hollow or channel, R′, to correspond somewhat with the channel Z of the bed B. Each head *a* is provided with a vertical screw, D, attached thereto by passing through the plate *a*′, which has a countersunk hole, to receive and retain the flared lower end of said screw, as shown in Figs. 1 and 5. The plate *a*′ is secured to the head *a* by a pair of screws, as shown in said figures. The screw D passes up through frame F, which is screw-threaded, so that when the screw is turned by means of a crank, as shown in Fig. 2, vertical motion either way may be given to the head *a*. Each screw and each compartment is separate and independent from the other. The space between the head *a* and bed B is intended to be filled with some kind of a wiping material, which may be asbestus or any other suitable non-combustible material. After it is partially filled, the wires are then threaded through the openings P, as shown in Fig. 1. The remainder of the wiping material is then placed in above the wire and the head *a* screwed down upon it, and the wire is then ready to be drawn through from the galvanizing-vat V, when the compressed wiping material will thoroughly clean and wipe off any superfluous galvanizing material on the wire, and polish the galvanized wire to such an extent as may be desired by the amount of compression applied to the wiping material, as aforesaid. The space between the bed B and the head *a* is formed somewhat in the form of a funnel, pointing in the direction the wire travels, which facilitates holding in and retaining the wiping material in place, and the passage of the wire through it tends to compress the wiping material in the small end of the funnel.

S represents a pivoted sinker, to depress the wire W into the galvanizing material M.

The principal novelty in this invention consists in the form of the follower and its corresponding cavity in the bed-plate. The sides

of the follower are tapered, and its bottom is concave, and is designed to be received in the corresponding cavity of the bed-plate, as shown more particularly in Fig. 5. This form of follower and bed-plate has the tendency to not only compress the wiping material vertically, but also horizontally, by means of the converging sides of said cavity in the bed-plate, thus packing the wiping material more closely around the wire in nearly a cylindrical form, and much more compactly than would be the case if the sides of the follower and bed were vertical.

While I do not claim it is new to simply arrange a series of compressors in a train and independently from each other, yet that is very desirable and advantageous where different-sized wires or rods are to be galvanized, and where it is desirous to stop one or more parts to insert new wires or change the sizes in any compartment for any reason.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. In the wire-galvanizing apparatus described, the combination of the bed B, provided with the cavities having the inclined converging sides R^2 R^2, and ends having the vertical slots P P′, and the follower *a*, having tapered sides corresponding with said cavities and the hollowed bottom R′, and adapted to hold suitable wiping material between said follower and bed, as and for the purpose set forth.

2. The combination of the frame F, bed B, having the cavities described formed with the converging sides R^2 R^2 and the vertically-slotted ends, partitions F′, follower *a*, having the tapered sides R R and hollowed bottom R′, and screw D, as and for the purpose set forth.

FREDERICK CRICH.

Witnesses:
THOS. H. HUTCHINS,
WM. J. HUTCHINS.