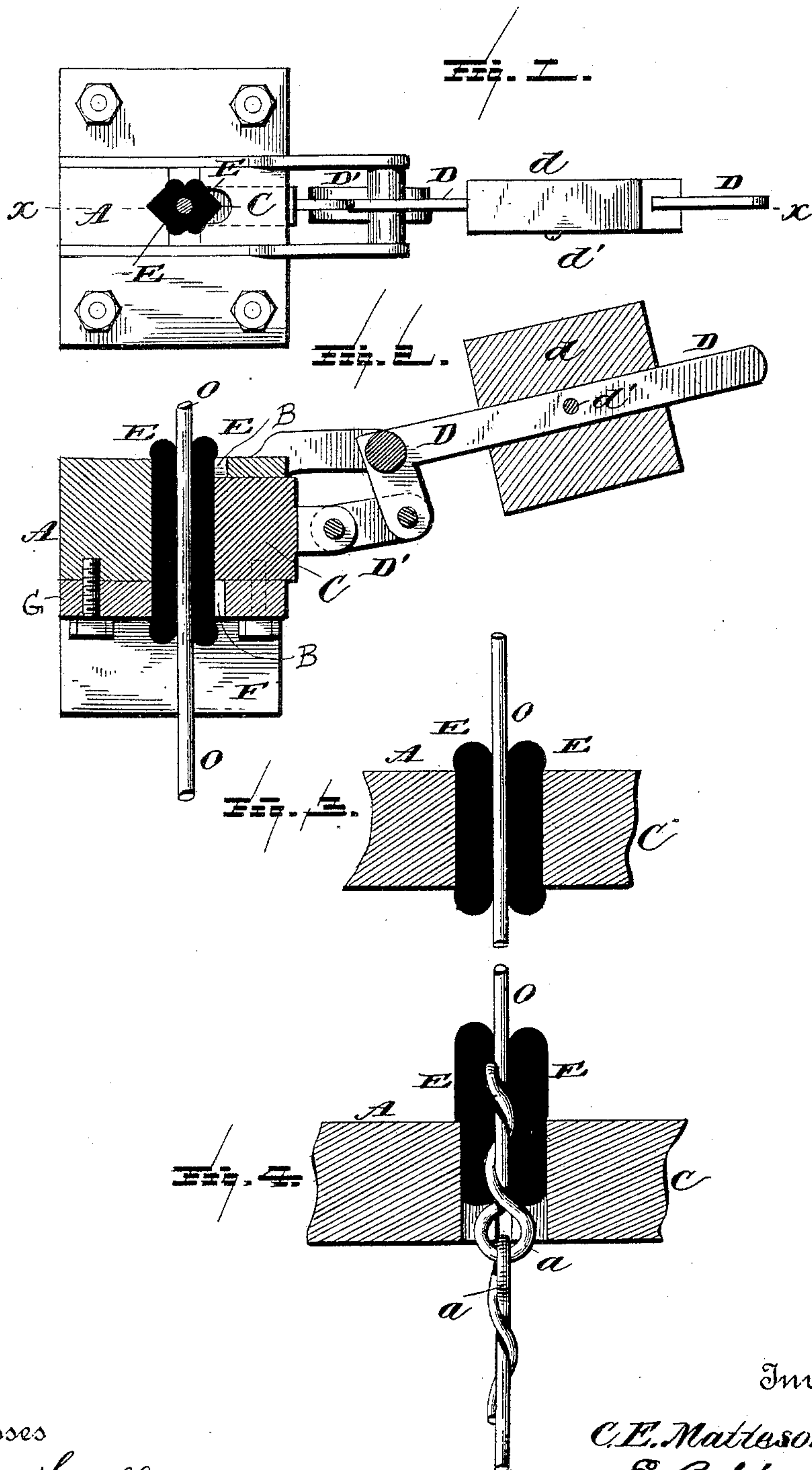


(No Model.)

C. E. MATTESON.
APPARATUS FOR GALVANIZING.

No. 435,760.

Patented Sept. 2, 1890.



Witnesses
L. C. Mills.
E. H. Bond.

Inventor:
C. E. Matteson,
E. B. Stocking
Attorney

UNITED STATES PATENT OFFICE.

CHARLES E. MATTESON, OF ALLENTOWN, PENNSYLVANIA.

APPARATUS FOR GALVANIZING.

SPECIFICATION forming part of Letters Patent No. 435,760, dated September 2, 1890.

Application filed May 22, 1890. Serial No. 352,708. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. MATTESON, a citizen of the United States, residing at Allentown, in the county of Lehigh, State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Galvanizing, of which the following is a specification, reference being had therein to the accompanying drawings.

10 My invention has reference to galvanizing apparatus, but more specifically to the wipers therefor; and it consists in certain improvements which are fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

15 The object of my invention is to provide apparatus for galvanizing wire with suitable wiping devices, whereby the excess of metal coating the wire after passing through the metal bath may be wiped off and the thickness of the coating be governed to a nicety. It is evident that this is important from two standpoints. For instance, the metal used for coating the wire is zinc, which is very expensive, and consequently no excess should be allowed to remain on the wire; next, the finish of the wire is important, and for these reasons the coating should be wiped smooth, and the outer surfaces should be more or less uniform in character.

30 My invention is adapted to accomplish the desired result.

35 In carrying out my invention I provide immediately above the zinc bath a wiper or wipers, which consist of two parts relatively movable and provided with wipers, preferably of asbestos or other non-combustible material, the said relatively-movable parts being forced together by suitable pressure-creating devices. I provide for the ready removal of the pads when a splice in the wire arrives at the wiper.

45 In the drawings, Figure 1 is a plan view showing my improvement. Fig. 2 is a sectional elevation of the same on the line *xx* of Fig. 1. Fig. 3 is a sectional detail showing the wipers with the wire between them, and Fig. 4 is a like view showing the operation of the parts when a splice comes in contact with the pads.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the stationary frame of the wiper, which may have an elevating support or foot F, by which it is secured to a cross-bar G, and is also provided with a recess for the wiping-pad and openings B above and below for the passage of the wire. Working in conjunction with these parts or frame A is a movable bar or plunger C, guided in the bar A, and also provided with a recess for the other wiping-pad. This movable bar or plunger C is moved by a lever D, connected to it by a link D' or otherwise, and which lever is weighted at *d*, the said weight being adjustable longitudinally upon the lever by a set-screw *d'* to vary the pressure of the movable bar C upon the wire O in the wiper.

70 E E are two wiping-pads of soft material, preferably asbestos or non-combustible substance; but they may be of felt. These pads are respectively held in the stationary and movable bars A and C, and cannot slip with the traveling wire; but are readily removable when a splice in the wire arrives at the wiper, as said splice comes in contact with the pads at their lower ends and carries them bodily out of the frame A, the openings B above and below being sufficiently large to permit of this operation. This ready passage of the splices and pads is an improved feature of the mode of operation embodied in the construction described and shown, as it avoids the necessity of picking or otherwise with more or less difficulty removing a thoroughly packed, compressed, and hardened pad for the purpose of replacing it with a fresh pad, as is necessary with constructions heretofore used. The extent of surface-contact of the pads with the walls of the openings in the fixed and movable bars A and C is sufficient to retain the pads therein during the operation of wiping the wire at all points between the splices.

In place of the weight *d* a spring may be employed to act upon the lever D or plunger C.

The mere minor details are unimportant, as it is evident that the shapes or designs of

the bars may be modified without departing from the spirit of my invention.

In operation the wire after being galvanized or coated passes up between the pads E 5 E, which are thick and envelop it on all sides, wiping off the excess of metal, and giving a smooth evenly-finished surface to the wire. By varying the pressure upon the pads more or less of the coating metal may be wiped off, and 10 the thickness of the metal coating be thereby regulated. The movability of the plunger C or the separation of the parts A and C and their pads admit of the passage of splices *a* in the wire, which is a feature of great im- 15 portance. The wiper is automatic in its action and requires but a small amount of attention. When the pads are worn out or clogged beyond use, they can readily be re- placed.

20 Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a wiper for apparatus for coating wire, the combination, with the frame or stationary 25 part having an opening therethrough for the passage of the wire, of a movable bar or plunger, a removable pad held within the stationary part, and a similar removable pad actuated by the movable bar or plunger, said

pads being arranged to be withdrawn by the 30 contact of the splices therewith in the passage of the wire, substantially as described.

2. A wiper comprising a fixed portion hav- 35 ing a continuous opening therethrough for the passage of splices, in combination with a movable part forming a portion of the wall of said opening, and pads arranged in said opening and free to be removed by the con- 40 tact of a splice therewith in the passage of the wire, substantially as shown and described.

3. In a wiper for apparatus for coating wire, the combination, with a stationary part hav- 45 ing an opening therethrough and a movable part forming a portion of the wall of said opening, of an adjustable weighted lever connected with the movable part, and pads held within the openings by frictional contact with the walls thereof and arranged to be automati- 50 cally removed by the contact therewith of a splice in the passage of the wire therethrough, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES E. MATTESON.

Witnesses:

W. M. DOUGLASS,

THOMAS P. ALDER.