March 17, 1931. G. F. MATTESON 1,797,174

WIRE OR ROD POLISHER

Filed May 2, 1928

Fig. 1.

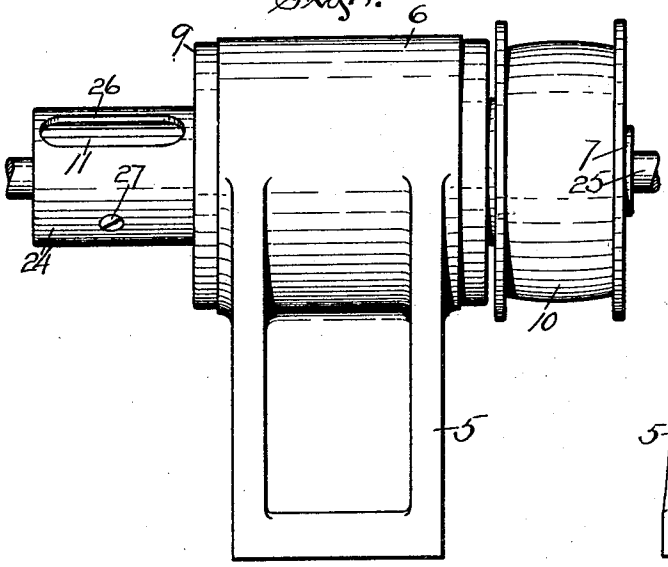


Fig. 2.

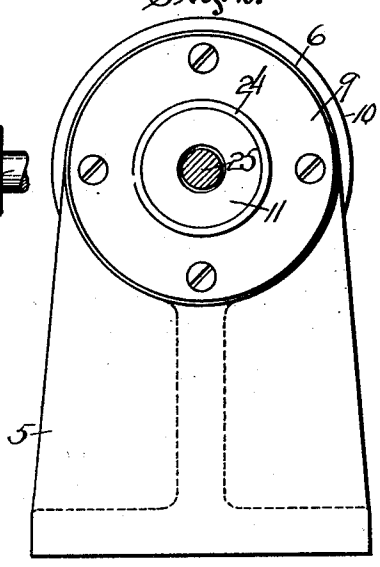


Fig. 3.

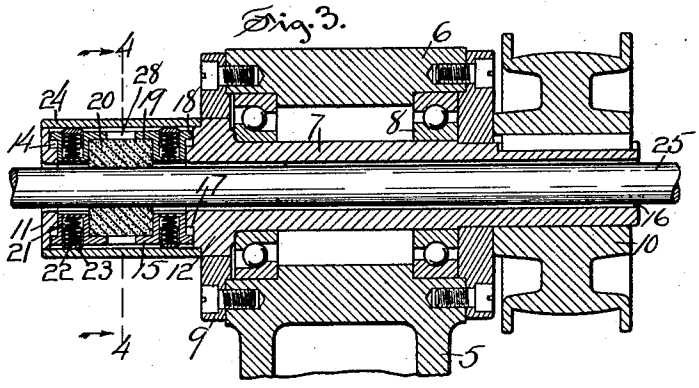


Fig. 4.

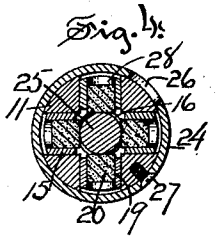
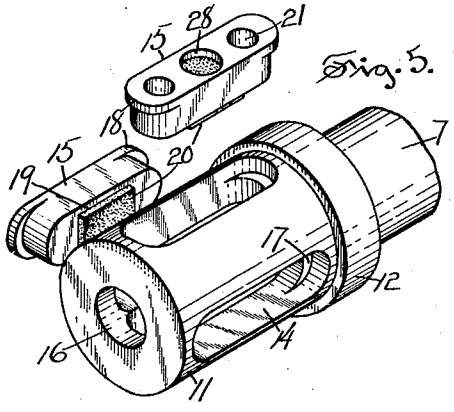


Fig. 5.



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UNITED STATES PATENT OFFICE

GEORGE FRANKLYN MATTESON, OF ROCKYHILL, CONNECTICUT, ASSIGNOR TO THE F. B. SHUSTER COMPANY, OF NEW HAVEN, CONNECTICUT, A CORPORATION OF CONNECTICUT

WIRE OR ROD POLISHER

Application filed May 2, 1928. Serial No. 274,621.

My invention relates to the class of devices employed for polishing indefinite lengths of wire or rods and as more commonly employed in connection with machines for straightening wire or rods, and an object of my invention, among others, is the production of a polishing device that shall be simple in construction and particularly efficient in operation.

One form of device embodying my invention and in the construction and use of which the objects herein set out, as well as others, may be attained, is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my improved polisher.

Figure 2 is an end view of the same.

Figure 3 is a view in lengthwise central section.

Figure 4 is a view in cross section on a plane denoted by the dotted line 4—4 of Figure 3.

Figure 5 is an isometric view showing the construction of the polishing units, together with the means for containing the same.

As has heretofore been stated this device is particularly of advantage when used for polishing in connection with wire straightening machines, but only so much of the structure is shown herein as will be necessary for an understanding of the invention, in the drawings the numeral 5 indicating a bracket arranged for support upon the bed of a machine and secured thereto in any ordinary manner. This bracket comprises a bearing 6 of any desired construction at its upper end to receive and support for rotation a bearing sleeve 7 which, in the structure herein shown, is mounted on ball bearings 8 located in recesses in the bearing 6 and held therein as by means of plates 9 secured as by means of screws and as shown in Figure 3 of the drawings. Said bearing sleeve 7 extends through the plates 9 and ball bearings and has a pulley 10 secured thereto at its outer end as a means for rotating it.

The projecting end of said bearing sleeve opposite the pulley 10 constitutes a polisher support 11 and a bolster 12, said support being reduced in size as compared with said bolster and having openings 14 for polishing units now to be described. The openings 14 extend from the outer surface of the reduced end to a hole 16 extending axially through the sleeve and a shelf 17 is formed at each end of each opening 14 a short distance from the mouth of the opening.

The polishing units each includes a holder 15 formed to fit one of the openings 14, each holder having lips 18 at opposite ends to be seated upon the shelves 17. Each unit has a recess 19 for a polishing block 20 comprising a portion of the unit and made of any suitable abrading material and of a size to fit tightly within said recess.

The holders 15 are each of a thickness slightly less than the depth of the opening 14 in which the unit is located and they are fitted loosely enough in said openings to have a slight play therein. Spring recesses 21 are formed in the ends of each holder 15 to receive springs 22, which springs may, if desired, be provided with covers 23. A cover sleeve 24 is fitted upon the support 11, as shown in Figures 3 and 4, the structures herein described providing a space between the outer sides of the holders and the inner surface of the cover sleeve to provide some radial play of the holders to enable ready insertion of a wire or rod 25 that is moved through the device, usually by suitable feed rolls in connection with a straightening arbor, when such is employed. A slot 26 is formed through the sleeve 24 for the insertion of the units, the sleeve being rotatable to locate said slot over any of the openings 14, and the sleeve may be secured in any suitable manner as by a screw 27. A hole 28 may be formed through each holder into the recesses 19 for the insertion of a tool when required for removal of any of the blocks 20. The shelves 17 form stops to limit inward movement of the polishing units.

In accordance with the provisions of the patent statutes I have described the principles of operation of my invention, together with the device which I now consider to represent the best embodiment thereof; but I desire to have it understood that the device shown is only illustrative and that the inven-

tion may be carried out by other means and applied to uses other than those above set out.

I claim—

1. A polisher including a support comprising a rotatably mounted shank and a reduced end with a hole extending axially therethrough, said reduced end having oppositely arranged radial openings with shoulders therein, polishing units loosely fitting in said openings, said units including holders having lips to touch said shoulders, each unit also including a polishing block located in a recess in each of said holders, and a sleeve fitting said reduced end to retain said units in place.

2. A polisher including a support comprising a rotatably mounted shank and a reduced end with a hole extending axially therethrough, said reduced end having oppositely arranged radial openings, polishing units located in said openings, each unit including a holder and a polishing block located in a recess in said holder, a sleeve removably fitting said reduced end and having a slot to register with each of said radial openings for insertion of said units through said slot, and means for holding said sleeve in place.

3. A polisher including a support comprising a rotatably mounted shank and a reduced end with a hole extending axially therethrough, said reduced end having oppositely arranged radial openings, polishing units loosely fitting said openings, said units including holders having spring recesses and a polishing block located in each of said recesses, springs located in said spring recesses, and a sleeve inclosing said openings to retain said units in place and to receive the thrust of said springs.

4. A polisher including a support rotatably mounted with a projecting end and a hole extending axially therethrough, said projecting end having oppositely arranged radial openings with shoulders therein, polishing units loosely fitted in said openings and projecting therethrough into said hole, each unit including a holder having lips to engage said shoulders to prevent outward radial movement of the unit, and each unit also including a polishing block located in a recess in each of the holders.

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