

J. McAULIFFE.
 Device for Indenting and Heading Umbrella-Ribs.

No. 210,952.

Patented Dec. 17, 1878.

Fig. 1.

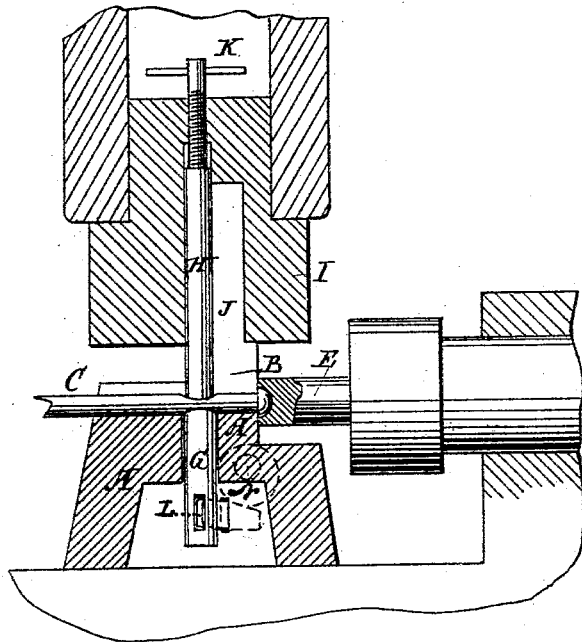


Fig. 2.

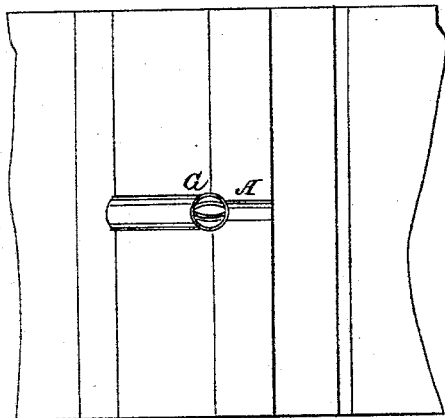


Fig. 3.

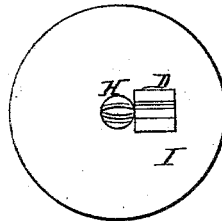
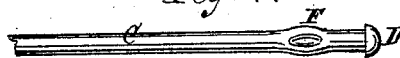


Fig. 4.



WITNESSES

J. S. Morgan.
J. A. Thayer.

By

John M. McAuliffe INVENTOR
A. P. Thayer Attorney

UNITED STATES PATENT OFFICE.

JOHN MCAULIFFE, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN DEVICES FOR INDENTING AND HEADING UMBRELLA-RIBS.

Specification forming part of Letters Patent No. **210,952**, dated December 17, 1878; application filed May 9, 1878.

To all whom it may concern:

Be it known that I, JOHN MCAULIFFE, a resident of Jersey City, Hudson county, and State of New Jersey, have invented new and useful Improvements in Dies for Indenting and Heading Umbrella-Ribs, of which the following is a specification:

In the common practice of heading or tipping umbrella-ribs the tips or heads are formed by upsetting the ends while projecting a little from a pair of clamping or holding dies, and the indenting or flattening of the ribs preparatory to punching the holes through which the covers are sewed on is done in another operation by a pair of flattening or indenting punches or dies, making two separate operations. Owing to the small size of the wire, it is exceedingly difficult to make the holding-dies for the heading operation sufficiently accurate to hold the wire against slipping when the header acts on it; moreover, they very soon wear, and the wires vary in size, so that at the best there is considerable difficulty in heading the wires properly. I therefore propose to arrange the flattening or indenting dies together with the holding-dies, and in such relation therewith that they perform their work at the same time that the holding-dies close on the wire, or immediately thereafter, and then act powerfully in conjunction to hold the wire while the header acts, so that I not only save one operation, but also insure more perfect heading, and the indenting-die, which works in the lower or stationary clamping-die, I arrange with contrivances which cause it to drop a little when the clamping-dies open to allow the wires to bed fairly in the lower clamping-die, which would be prevented by the projection of it above the bottom of the groove, and would cause the wires to lie too much to one side or the other to permit the clamping-dies to close rightly; and both of these indenting-dies I make separate from and arrange in the clamping-dies, so that they may be adjusted as the points wear away, as in practice such points wear much more than the clamping-dies.

Figure 1 is a sectional elevation of the dies. Fig. 2 is a plan of the bed-dies. Fig. 3 is a

plan of the upper or movable clamping-die and the indenting-die used with it; and Fig. 4 is a plan of an umbrella-rib, showing the indentation of one side and the tip or head.

A represents a bed or stationary die, and B a movable die, for holding the wire rib C while being upset by the header E. G is a flattening or indenting die, which I arrange in the stationary die-block, projecting up in the center of the groove of the die A; and H is a corresponding die, similarly arranged alongside of the movable die B in the stock I, to flatten or indent the wires C, as commonly done preparatory to punching the holes in which the covers are fastened. G and H consist of rods fixed in the die-blocks A and I, respectively, with suitably-shaped indenting-points, and being so that they may be adjusted from time to time as the points wear; and G is made to reciprocate, (say by a lever, L, worked by a cam, N, or other means,) in order that it may drop a little after each operation, and thus allow the wire C to bed fairly in die A before dies A B close. K is an adjusting-screw for H. G may be adjusted by a screw on lever L.

It will be readily seen that by this arrangement the flattening or indenting and the upsetting or heading will be done by one and the same operation of the machine; and, besides, the indenting-dies give powerful auxiliary assistance to the holding-dies in keeping the wire in place after making the indentations and while the heading is being effected.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, in a machine for flattening or indenting and heading umbrella-ribs, of the movable clamping-die, a separate adjustable flattening or indenting die, the stationary clamping-die, a reciprocating flattening or indenting die, and a header, substantially as described.

JOHN MCAULIFFE.

Witnesses:

W. J. MORGAN,
F. A. THAYER.