

H. A. WHITING.

Machines for Wiring and Binding Hats.

No. 138,459.

Patented April 29, 1873.

Fig. 1.

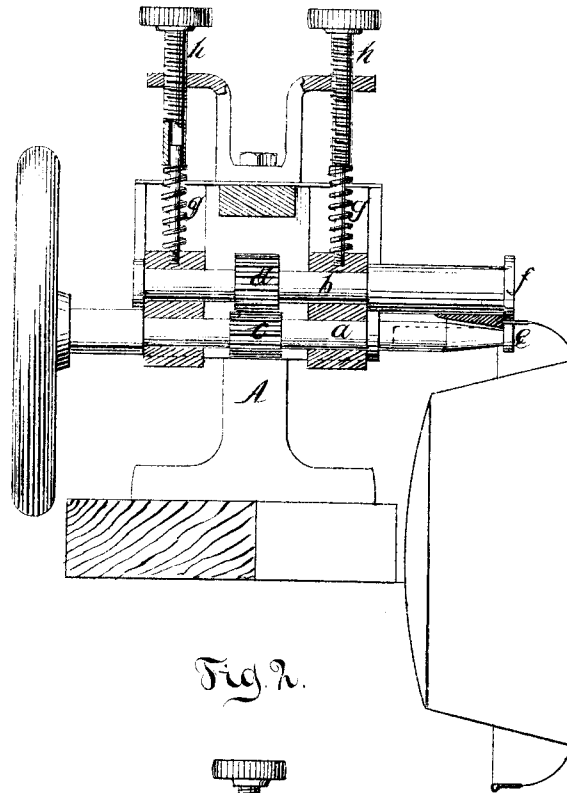
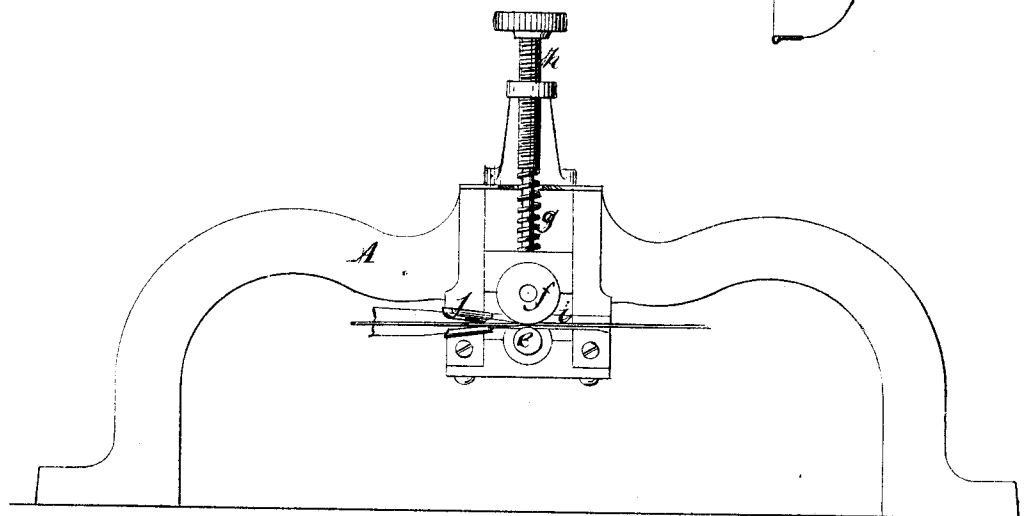


Fig. 2.



Witnesses
Ernst Bilhuber.
Chas. Wickers.

Inventor.
Henry A. Whiting
By Van Santvoord & Hauff
his attys

UNITED STATES PATENT OFFICE.

HENRY A. WHITING, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR WIRING AND BINDING HATS.

Specification forming part of Letters Patent No. **138,459**, dated April 29, 1873; application filed March 20, 1873.

To all whom it may concern:

Be it known that I, HENRY A. WHITING, of the city, county, and State of New York, have invented a new and Improved Machine for Wiring and Binding Hats; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a transverse vertical section of this invention. Fig. 2 is a front view of the same.

Similar letters indicate corresponding parts.

This invention consists in the combination of a braid-folding guide with two pressing-rollers, and with an intervening abutment, in such a manner that, by passing a braid through the folding-guide and through between the pressing-rollers, together with a wire which is placed in the bight of the braid, the braid, when supplied with a suitable cement, and the wire, can be readily and neatly secured to the edge of a hat-frame, or of any other article of wearing-apparel, and the tedious labor of sewing the wire and braid to said edge is saved.

The pressing-rollers are forced against each other by a yielding pressure, and the diameter of the lower pressing-roller is made small, so that the same will work between the edge and the body or crown of a hat-frame.

In the drawing, the letter A designates a frame, which forms the bearings for two shafts, *a b*. These shafts are geared together by cog-wheels *c d*, and on their front ends are mounted the pressing-rollers *e f*. The shaft *a* of the lower pressing-roller *e* is mounted in rigid bearings; but the bearings of the shaft of the upper pressing-roller *f* are so arranged that they can move toward and from the bearings of the lower pressing-roller, and they are subjected to the action of springs *g*, the tension of which can be regulated by set-screws *h*, so that the upper pressing-roller bears on the lower one with a yielding pressure, and that this pressure can be regulated according to circumstances.

The diameter of the lower pressing-roller *e* is much smaller than that of the upper pressing-roller, so that said lower pressing-roller can work between the brim of a hat-frame and its crown, or that the edge of the article which is to be supplied with a binding and with a wire can be conveniently introduced between said two rollers independent of the shape of the article; but it must be remarked that the two pressing-rollers are geared together, so that they revolve with a uniform superficial velocity.

Between the two pressing-rollers is situated a rigid abutment, *i*, which is at such a distance from the inner edges of said pressing-rollers that room is obtained for the wire and for the binding material; and to said abutment is secured a folding-guide, *j*, through which the braid and the wire are passed, as shown in Fig. 2. By this guide the braid is folded, the wire being situated in its bight.

Before passing the braid through the folding-guide it is carried through a vessel containing water, so that it becomes moistened, and by the moisture the sizing of the braid and of the hat-frame is softened; and when the edge of the frame is placed between the folded braid and passed through between the pressing-rollers, the braid is caused to adhere to its edge, and both the wire and the braid can thus be secured to said edge in an easy and expeditious manner. If desired, however, the braid can be supplied with a suitable cement before it is introduced into the folding-guide.

The edge of the abutment *i* is, by preference, grooved, so that it forms a guide for the wire and for the bight of the folded braid.

The frame A is so constructed that the edge of a hat-frame can be easily introduced between the pressing-rollers, and I have constructed my machine particularly for the purpose of attaching braids and wires to the edges of such frames; but it must be remarked that my machine can be used in all cases where it is required to apply a braid and a wire to the edge of any fabric, or to an article of any desired description.

The pressing-roller is hollow, so that it can be heated, if desired.

What I claim as new, and desire to secure by Letters Patent, is—

The shafts *a b*, having gear-wheels *c d* and pressing-rollers *e f*, constructed and arranged as described, in combination with each other,

and with grooved abutment *i* and folding-gage *j*, as and for the purpose herein specified.

HENRY A. WHITING.

Witnesses:

W. HAUFF,

E. G. KASTENHUBER.