

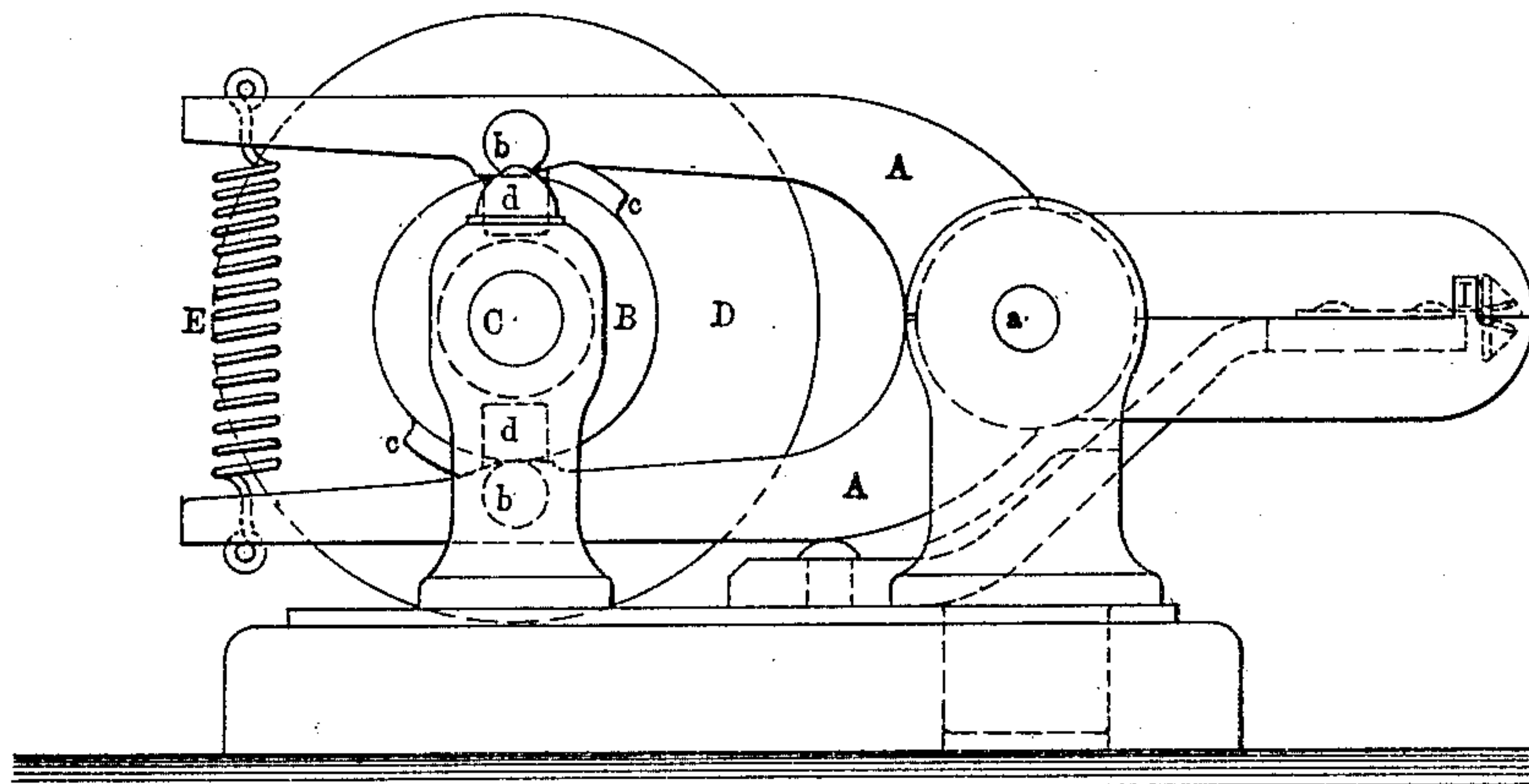
W. C. PERRY.

MACHINES FOR BINDING AND WIRING HAT FRAMES.

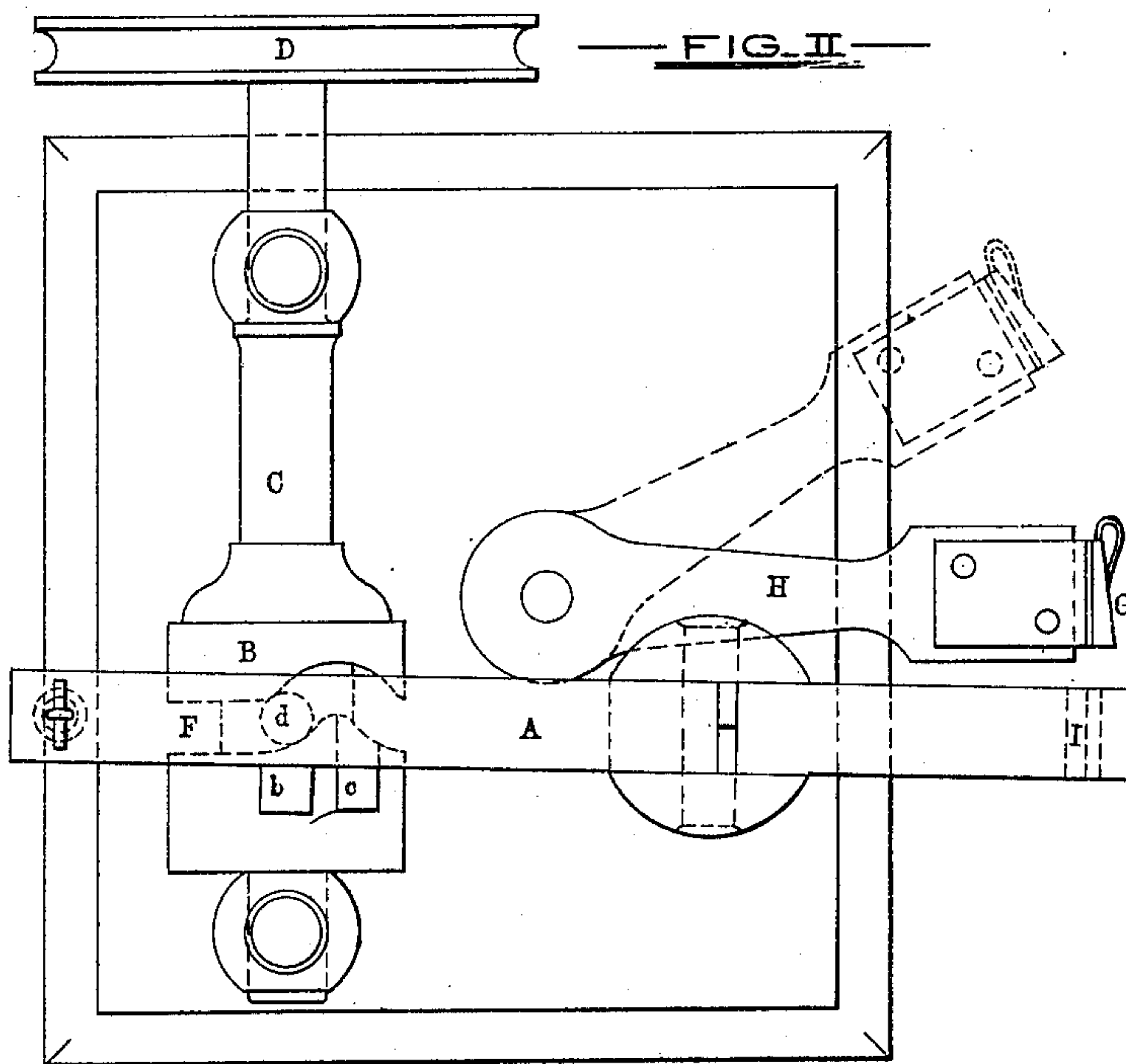
No. 179,601.

Patented July 4, 1876.

— FIG. I —



— FIG. II —



WITNESSES:

J. B. Greene
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UNITED STATES PATENT OFFICE.

WILLIAM C. PERRY, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN MACHINES FOR BINDING AND WIRING HAT-FRAMES.

Specification forming part of Letters Patent No. **179,601**, dated July 4, 1876; application filed January 14, 1876.

To all whom it may concern:

Be it known that I, WILLIAM C. PERRY, of the city of Baltimore, and State of Maryland, have invented certain new and useful Improvements in Machines for Binding and Wiring Hat and Bonnet Frames, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The machine embodying my improvements, as hereinafter fully set forth, is one in which the binding and wiring operation is performed by the clamping of the edge of the bonnet-frame, together with the binding and wire, between the two parts or members of a clamp formed by the outer or free extremities of levers. The levers are operated through the medium of a revoluble cam, the feed or motion of the bonnet-frame, binding, and wire, transversely of the clamp, being obtained by a vibratory movement of the said clamp, also received from the cam, to and from a holder adapted to guide the binding and wire in the direction aforesaid.

In the further description of my invention which follows, due reference must be had to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a side view of a machine embodying my invention; and Fig. 2 a plan of the same.

Similar letters of reference indicate similar parts in both views.

A A are levers pivoted together, and to a suitable stand, at *a*, at which point they are crossed, in order that the long and short arms may have a common or conjoined movement, as and for purposes hereinafter described.

The short arms of the levers A are arranged to come into close contact when the long arms are separated or distended sufficiently to allow of the partial revolution of the cam B. The cam B is a cylindrically-formed device, secured to the shaft C, which is revolved by means of the pulley D. The long arms of the levers A, at a point directly on a line with the vertical center line of the cam, are provided with the pins *b*, which

project from the sides thereof, and come into contact with the toes *c*, extending from two opposite points on the periphery of the cam. E is a spiral spring connecting the long arms of the levers A, and serves to keep the said long arms in contact with the cam during its revolution. F is an irregularly-shaped groove, extending entirely around the periphery of the cam B, and adapted to receive the pins *d*, situated on the inner sides of the long arms of the levers A.

During a revolution of the cam B a complex movement is imparted to the levers A, consisting of the alternate distension and contraction of the long and short arms, and a vibratory motion of the same in conjunction with the stand to which the said levers are pivoted.

G is a guide, fastened to the outer end of a movable arm, H, and is fitted to receive the binding and wire to be secured to the edge of the bonnet-frame. The object in having the arm H movable is to allow of its being placed in the position shown by the dotted lines in Fig. 2, in order to allow of the ready insertion of the wire and binding in the guide G. I is a projecting strip, secured to the short arm of one of the levers A, and adapted to rest, when the clamp is closed, within a cavity in the other arm, for the purposes hereinafter described.

The short arms of the levers A are heated by a gas-flame to assist in causing the thorough adherence of the binding, which is applied to the bonnet-frame in a moistened condition. Upon the machine being set in motion the short arms of the levers A alternately open and close, and vibrate to and from the guide G. By this complex movement it will be seen that at each vibration of the levers a portion of the binding and wire is fastened to the bonnet-frame, and the parts operated upon drawn sufficiently from the guide to admit of the levers taking hold of an adjoining piece, thereby causing an intermittent feed. The projecting strip I before alluded to serves to direct the feed in a line corresponding with, or parallel to, the edge of the bonnet-frame.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. In a binding and wiring machine, the com-

bination of the crossed levers A, having the pins *b* and *d* projecting therefrom, and the cam B, provided with the toes *c*, and irregularly-shaped groove F, and spiral spring E, substantially as specified.

2. The levers A, pivoted to a movable stand, in combination with the projecting strip I and arm H, substantially as set forth.

In testimony whereof I hereunto subscribe my name this 27th day of December, A. D. 1875.

WILLIAM C. PERRY.

Witnesses:

GEO. P. HEMMICK,
W. W. WHARTON.