

N. CHAPMAN.
Wire-Pointing Devices.

No. 154,838.

Patented Sept. 8, 1874.

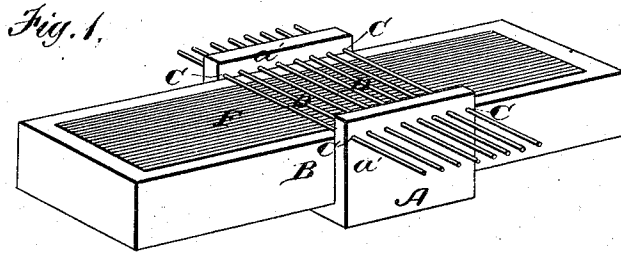


Fig. 2.

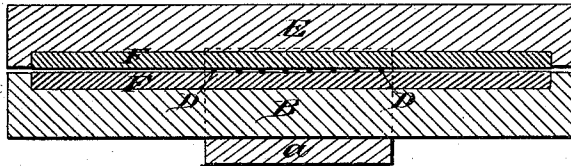
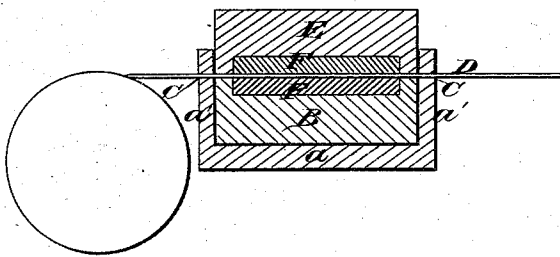


Fig. 3.



Witnesses.

C. T. Brown.

Neville Church

Inventor
Nathan Chapman
By his Attys.
Hill & Deane

UNITED STATES PATENT OFFICE.

NATHAN CHAPMAN, OF HOPEDALE, MASSACHUSETTS.

IMPROVEMENT IN WIRE-POINTING DEVICES.

Specification forming part of Letters Patent No. **154,838**, dated September 8, 1874; application filed June 3, 1874.

To all whom it may concern:

Be it known that I, NATHAN CHAPMAN, of Hopedale, in the county of Worcester and State of Massachusetts, have invented a new and Improved Carrier for Holding and Rotating Wire-Blank while being Pointed; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a perspective view of my invention with the sliding block removed. Fig. 2 is a longitudinal section of the same, and Fig. 3 is a transverse section.

Similar letters of reference in the accompanying drawings denote the same parts.

This invention relates to that class of mechanism employed for holding and rotating wire-blanks for needles, &c., while their ends are being pointed by contact with a grinding-wheel or other abrading device, as shown in my patent of May 12, 1874, in which a single wire is held in a reciprocating rotary carrier, and thus presented to the grinding-wheel. My present invention has for its object to provide a carrier adapted to hold and rotate a series of parallel wires while their ends are being pointed, thereby facilitating the operation. To this end it consists in a blank holder or carrier adapted to hold a series of blanks in a parallel position, in combination with two blocks—one stationary and the other sliding, or both sliding in opposite directions—said blocks having plane surfaces, and arranged on each side of the series of wires, (with their adjacent surfaces in contact with the same,) so that when motion is applied to one or both of the surfaces the friction on the blanks causes their rotation, all of which I will now proceed to describe.

In the drawings, A represents the blank holder or carrier, which is, preferably, composed of a plate, *a*, having parallel lugs *a'* adapted to receive between them a rectangular metallic block, B, the flanges projecting above the upper surface of the block, as shown. C C represent orifices in the lugs *a'*, said orifices being arranged in rows immediately above the upper edges of the block B, and adapted to hold a series of wires, D, at right angles to said block, and in contact with its upper surface, as shown in Fig. 1,

each wire passing through an orifice in each lug. The orifices are of sufficient size to allow the wires to turn freely in them. E represents a metallic block adapted to slide between the projecting lugs *a'*, its lower surface resting on the wires D, as shown in Fig. 2. The upper and lower surfaces of the blocks B E are, preferably, coated with rubber or other yielding material F inserted in a suitable recess in each plate, and projecting very slightly, so as to afford yielding surfaces, which bear against the wires or blanks D. The block B is attached to a suitable supporting-frame, and the block E is provided with means for imparting a longitudinally-reciprocating motion thereto in a direction parallel with the axis of a grinding-wheel, the ends of the blanks or wires D projecting from the holder A, so that their ends are in contact with the grinding-surface, as shown in Fig. 3. The block E being reciprocated its friction on the blanks D causes a rotation of the wires in their holder, this rotation causing the holder to traverse along the block B with a differential movement from that of the block E. The blanks are thus carried along the grinding-surface and rotated at the same time, thereby insuring the perfect pointing of the wires and the even wearing of the grinding-surface. The blocks B E may both be reciprocated in opposite directions, if desired, the effect being to produce a more rapid rotation of the blanks.

My present invention is adapted to be used in connection with the cutting-off and feeding devices shown in my patent of May 12, 1874, above referred to, or other suitable mechanism.

The device is practicable without the wire-holder A, the pressure of the upper block being sufficient under ordinary circumstances to hold the blanks, although for greater certainty I prefer to use the holder.

I claim as my invention—

The blank holder or carrier A, provided with orifices C, in combination with the stationary block B and sliding block E, substantially as described, for the purpose specified.

NATHAN CHAPMAN.

Witnesses:

JOSEPH WHITAKER,
EDWARD E. NEWELL.