R. F. Cook,

Brad Punch.

No. 103,429. Patented May 24, 1870.

Fig. 1

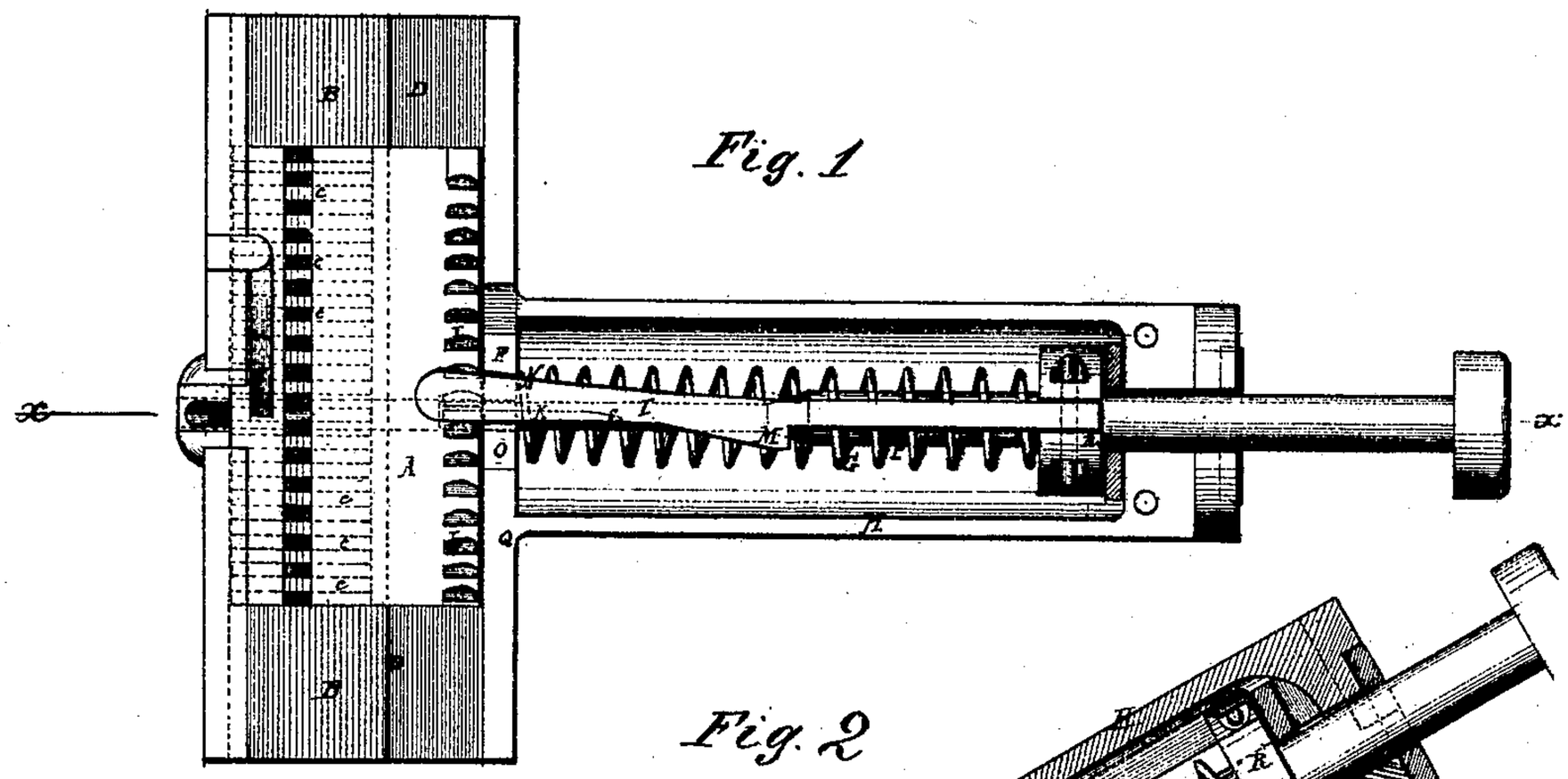
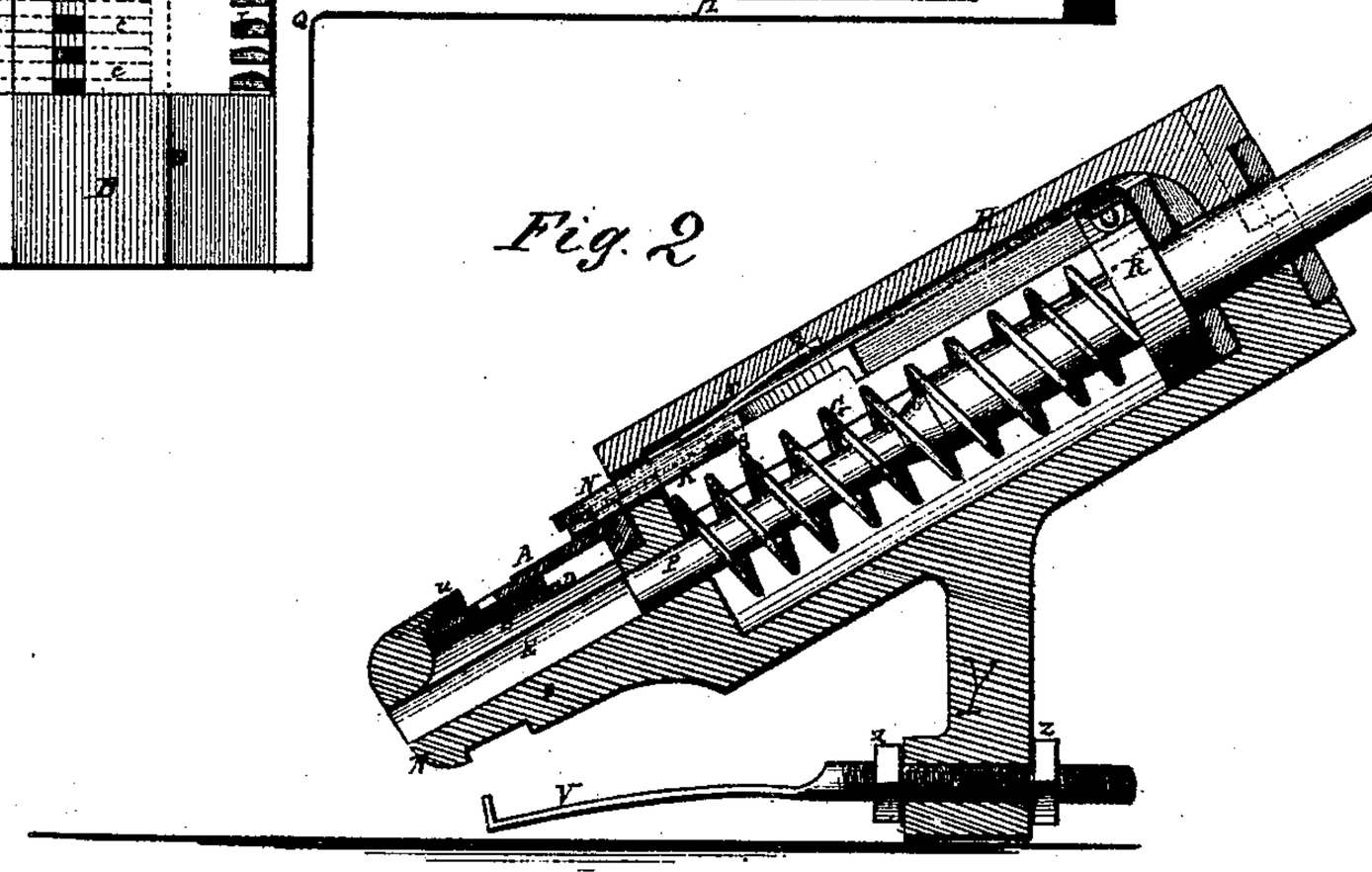


Fig. 2



Witnesses:

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ROSWELL F. COOK, OF POTSDAM, NEW YORK, ASSIGNOR TO SPARROW & SWAN, OF SAME PLACE.

Letters Patent No. 103,429, *dated May* 24, 1870.

IMPROVEMENT IN BRAD-PUNCH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ROSWELL F. COOK, of Potsdam, in the county of St. Lawrence and State of New York, have invented a new and improved Brad-Punch; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates to improvements in automatic-feeding brad-punches, and consists in an application to the plunger and the feeding-rack of a feeding and holding-pawl, arranged to feed and lock the rack by the return movement, an adjustable arrangement of the gauge, and in an improved construction of the plunger-case for application of the operating pawl.

Figure 1 is a plan view of my improved brad-punch, with a part of the plunger-case removed, and

Figure 2 is a sectional elevation of the same, taken on the line *x x* of fig. 1.

A is the feeding-rack, and

B, the bed for the same.

The rack has transverse grooves on the under side, shown in dotted lines at C, for containing the brads, which rest on the upper face of the bed B, with the heads hanging over the edge D, to be fed along one at a time by the rack into the groove E, in advance of the plunger F, by which they are forced into the articles to be nailed together, the plungers working in a case, H, at right angles to the feed-plate, and being struck a blow by the hand or by other means, and forced down against the brad, and the spring G coiled around the spindle of the punch, and arranged to force it back.

To feed the rack along by the return movement of the plunger and lock it in the required position, while the brad is driven, I have provided the vibrating pawl I, with the projecting rib K on the under side, to work between the teeth L of the rack, and with the inclines M N on the sides for working against the walls O P of the notch, in the flange Q of the bed, for imparting the necessary vibrating motion to it to cause it to work the feeding-plate, the said pawl being jointed to a collar, R, on the plunger, near the upper end, in a manner to allow it to vibrate as required.

The rib K engages between two of the teeth L, and slides down in a straight line when the plunger is forced down, holding the plate A in position until the point S passes beyond the teeth. The inclined side M of the pawl then comes against the wall O of the notch in the flange Q, which throws it over to the right, so that, when the plunger is returned, the point S of the rib K will engage in the next space to the right; at this time the incline N, on the other side of the pawl, comes against the wall P of the notch, and the pawl, together with the feeding-plate, is moved back to the left, causing the plate to feed another brad into the recess E in advance of the plunger.

T is a spring, attached to the upper part of the case, and bearing down upon the pawl I, to keep it engaged with the teeth of the plate A; and

U is a spring, attached to the bed B, and bearing on the top of the feeding-plate, to hold it in position.

In order to provide room for the collar R and pawl, I have made the case H cylindrical, and for the ready application and adjustment of the parts I make the said case in two parts, one of which is detachable, and secured by screws or other suitable means.

V represents the work-gauge, which, for different kinds of work, is required to be adjusted toward and from the end of the nozzle W, through which the brads are forced into the wood, and which, for this purpose, is screw-threaded in the part X, passing through the stand Y, and has a nut, Z, on each side, for adjusting and holding the gauge, as required.

Having thus described my invention,

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

1. The bar I, having bottom rib K, and lateral inclines M N thereon, and attached to collar R, on the pluger, combined with the walls O F, as and for the purpose described.

2. The combination of a feed-rack A, constructed as described, with the bar I, moving simultaneously with the plunger, to hold and feed said rack along, at the times and in the manner specified.

ROSWELL F. COOK.

Witnesses:

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