

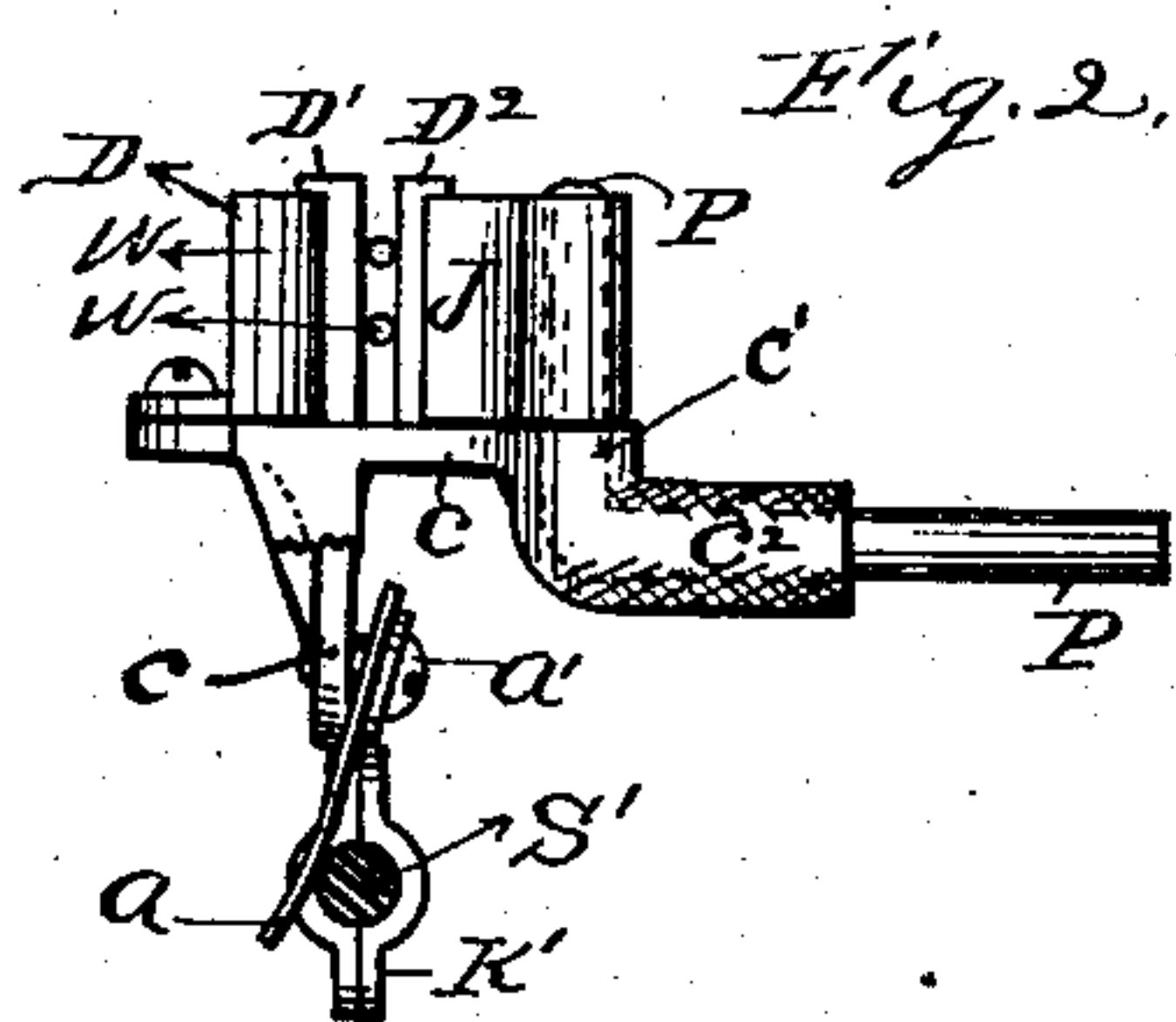
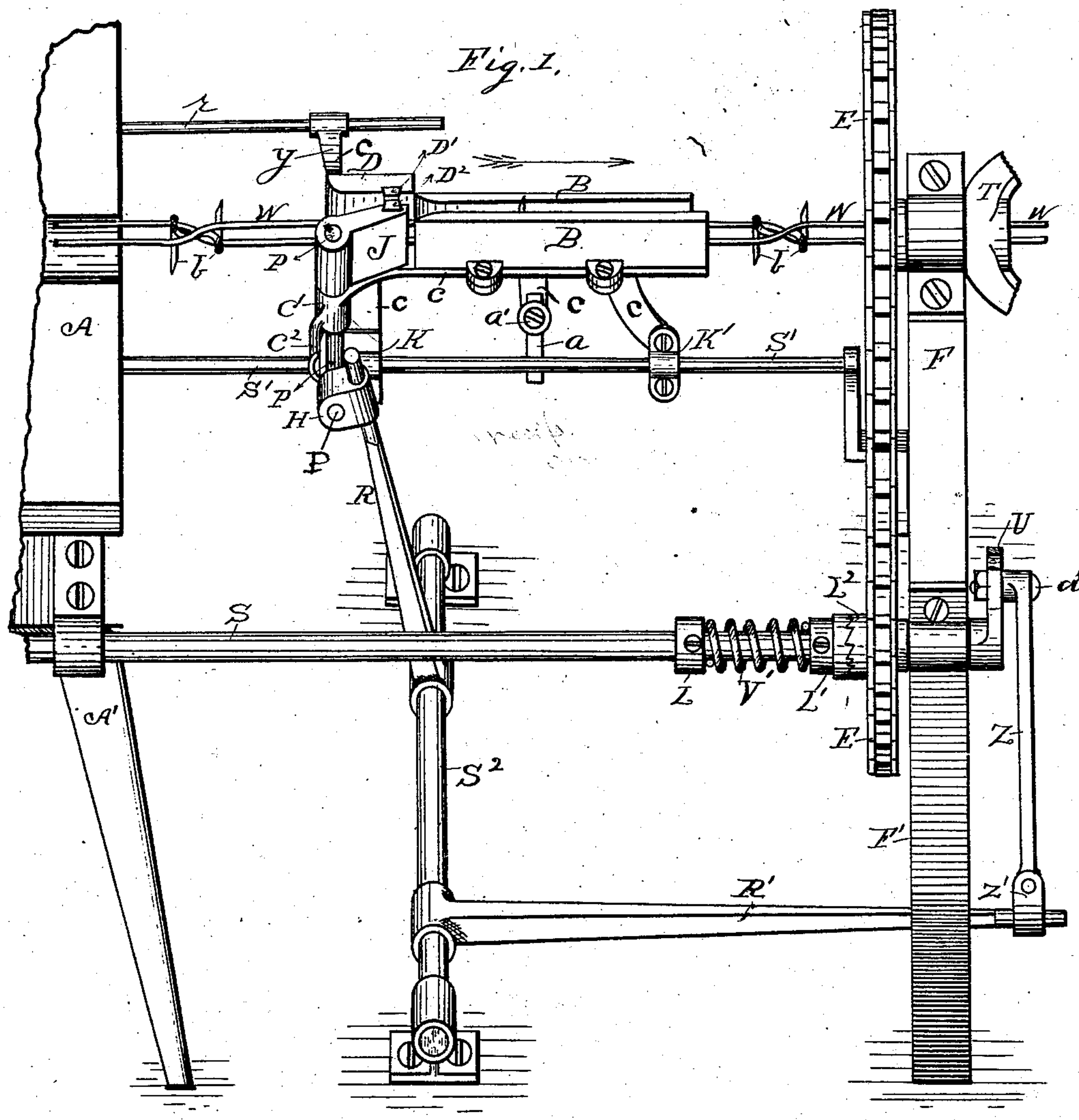
(No Model.)

G. CASE.

TAKE-UP FOR WIRE BARBING MACHINES.

No. 292,733.

Patented Jan. 29, 1884.



Witnesses

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# UNITED STATES PATENT OFFICE.

GEORGE CASE, OF JOLIET, ILLINOIS, ASSIGNOR TO ANDREW DILLMAN AND EDWARD R. KNOWLTON, BOTH OF SAME PLACE.

## TAKE-UP FOR WIRE-BARBING MACHINES.

SPECIFICATION forming part of Letters Patent No. 292,733, dated January 29, 1884.

Application filed December 15, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE CASE, a citizen of the United States of America, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in a Take-Up for Wire-Barbing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a perspective view; and Fig. 2, a front or end view of the carriage and jaws, looking in the direction of the arrow.

This invention relates to certain improvements in that portion of a wire-barbing machine that intermittently takes up the finished barbed wire from the barbing-machine as it is barbed.

Referring to the drawings, Fig. 1 is a general perspective view of the machine, showing it attached to the end of the barbing-machine bed A, and it may be applied to any barbing-machine where the wire stops to be barbed, and is delivered from the machine intermittently.

S is the drive-shaft, to which the power is applied.

S<sup>2</sup> is a rock-shaft secured to the floor by a box at either end, and has secured firmly to it the two arms R' and R<sup>2</sup>, which stand at right angles, or nearly so, with each other. Arm R' is connected at its outer end with the crank V on the outer end of drive-shaft S, by means of the pitman Z, stud-bolt d, and knuckle-joint Z'. Arm R attaches at its upper end by means of the knuckle-joint H to the horizontal portion of shaft P. Shaft P is right angle in form, as shown in Fig. 2. The perpendicular portion passes first up through the hub C', Fig. 1, and from thence up through the swing-jaw J, which is firmly keyed or secured to it. Hub C' is a part of and integral with the carriage C. The opposite jaw, D, is firmly attached to the top of the carriage C, as shown in Fig. 2, and does not swing. The carriage C is a flat casting provided with a pair of legs, which are boxed at their lower end by the boxes K and K' on the shaft S', on which they, with the carriage, reciprocate.

B B are a pair of guide-plates, securely fixed to the top of the carriage C, which

guide the barbed strand-wires through and prevent their being twisted until after they emerge and pass into the twister T, (not necessary to be shown.)

D' and D<sup>2</sup> are a pair of dies that are insertible in the face of the jaws D and J, by which dies the strand-wires W are grasped, as shown in Fig. 2. These dies are removable, so as to be replaced when worn, and are intended to be made of steel, so they will not wear out fast.

Carriage C is provided with an integral arm, C<sup>2</sup>, (shown more particularly in Fig. 2,) which arm projects out in front of the horizontal portion of shaft P, for the purpose of acting as a stop to said shaft when it swings back, and thus prevent jaw J from opening too wide.

In order to cause arm R to open and close the jaws at either reciprocation of carriage C before it moves the carriage, tension is applied to the rod S', on which carriage C reciprocates, by means of the tension spring or plate a and screw a', attached to carriage C, as shown more clearly in Fig. 2. By tightening up screw a', plate a is caused to impinge against the side of shaft S', and by such frictional contact therewith sufficiently retard carriage C until arm R has opened or closed jaw J before it has moved carriage C.

It is obvious that when shaft S and crank d rotate, arms R' and R will vibrate and carriage C will be reciprocated back and forth on shaft S', and as it reciprocates, the jaws, when in the position shown in Fig. 1, will be closed on the wires W at a point midway between the barbs, and the carriage moved backward as far as it is necessary to place the barbs apart, and draw that much wire through the barbing part of the machine. The reverse movement of arm R will then open the jaws, to relax their hold on the wire, and then move the carriage C back to the position shown in Fig. 1, ready for another like operation.

In order to cause the carriage C to stand upright and not rotate on the shaft S', the opposite side of the carriage C, looking at Fig. 1, is provided with an arm, y, firmly attached thereto, the outer end of which is provided with a traverse to traverse the stem r, which is attached firmly to end of the machine A.

More or less stroke is given to the carriage C by means of moving the stud-bolt *d* along in a slot in the crank V.

E is a sprocket-chain, which, by means of a sprocket-wheel on shaft S, and also one on the twister T, communicates motion to said twister. The twister is permitted to be turned backward, without moving the other machinery, by means of the clutch L' L<sup>2</sup>, which parts, however, form no part of this invention, and need no further description.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. The combination of the shaft S, slotted crank V, stud-bolt *d*, pitman Z, knuckle Z',

arms R and R', rock-shaft S<sup>2</sup>, knuckle H, bent shaft P, jaws D and J, carriage C, having the guide-plates B B, and tension-plate *a* and screw, *a'*, and shaft S', and boxes K and K', arm *y*, and stem *r*, as and for the purpose set forth.

2. In the barbed-wire take-up described, the combination of the arms R and R', crank V, pitman Z, shaft S, knuckle-joints Z' and H, and bent shaft P, for the purpose of opening and closing the jaws D and J, and to reciprocate the carriage C, for the purpose set forth.

GEORGE CASE.

Witnesses:

THOS. H. HUTCHINS,

W. J. HUTCHINS.