

(No Model.)

2 Sheets—Sheet 1.

G. H. LASAR.
BARBED WIRE MACHINE.

No. 322,546.

Patented July 21, 1885.

Fig. 1.

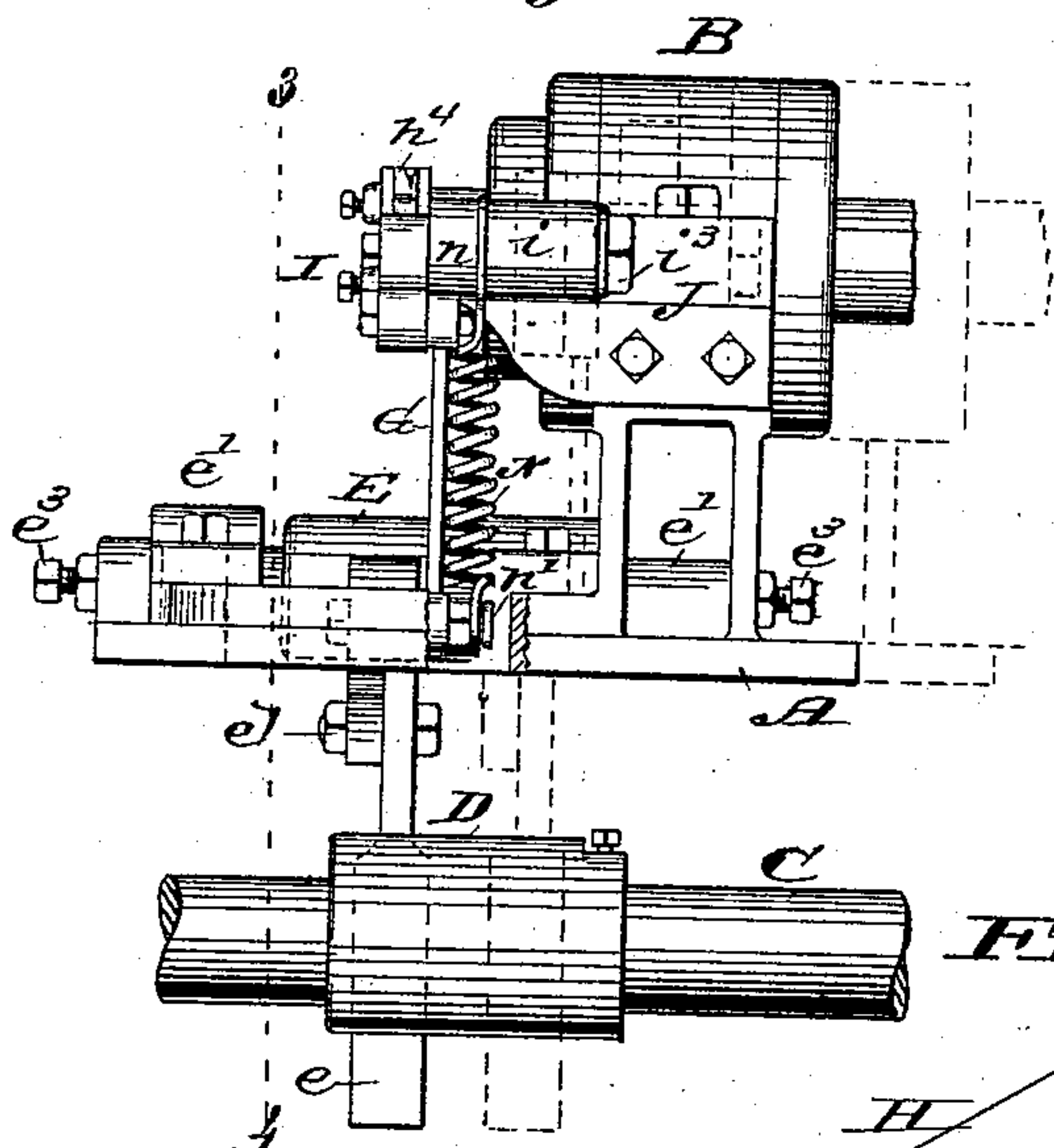


Fig. 3.

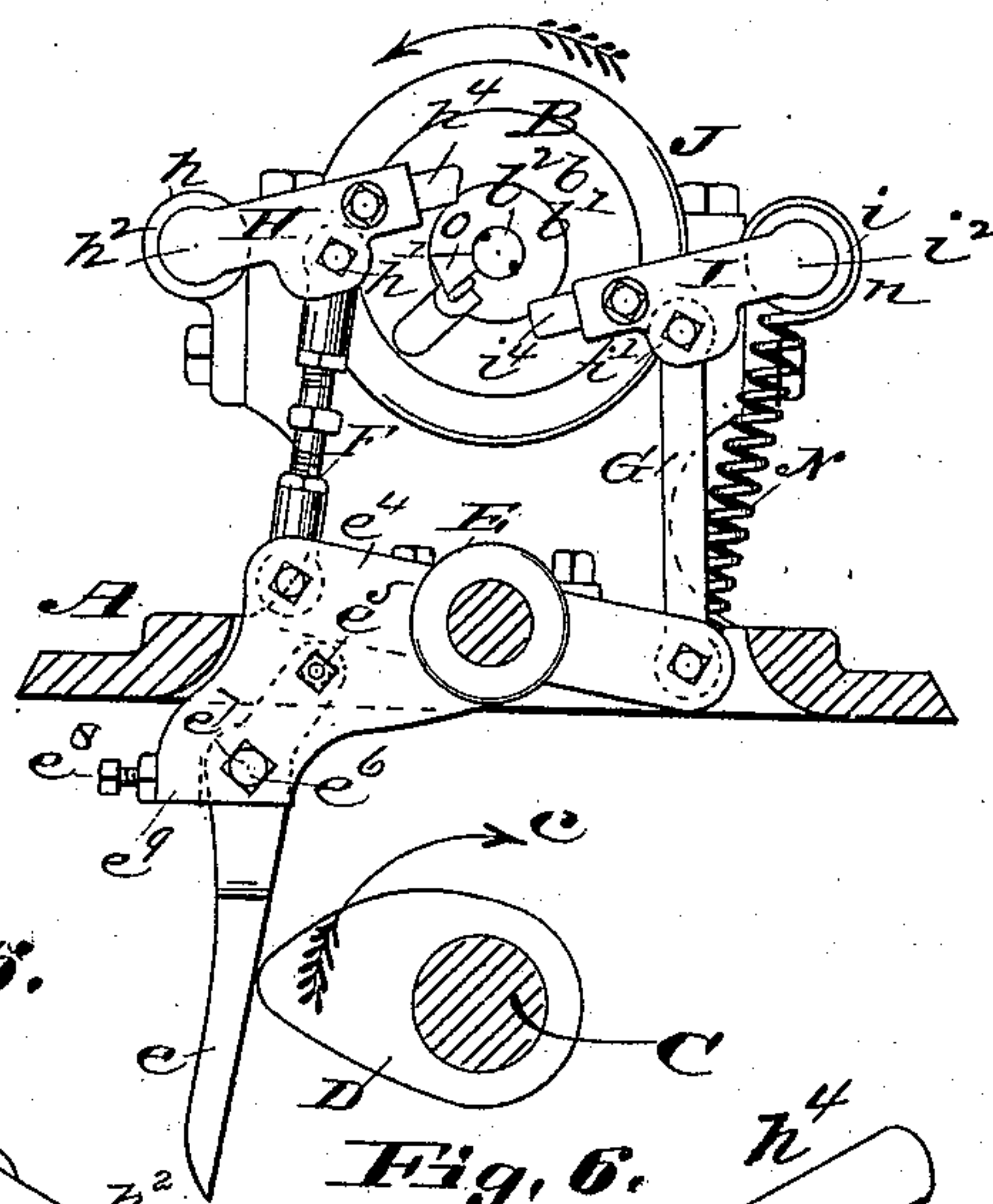


Fig. 5.

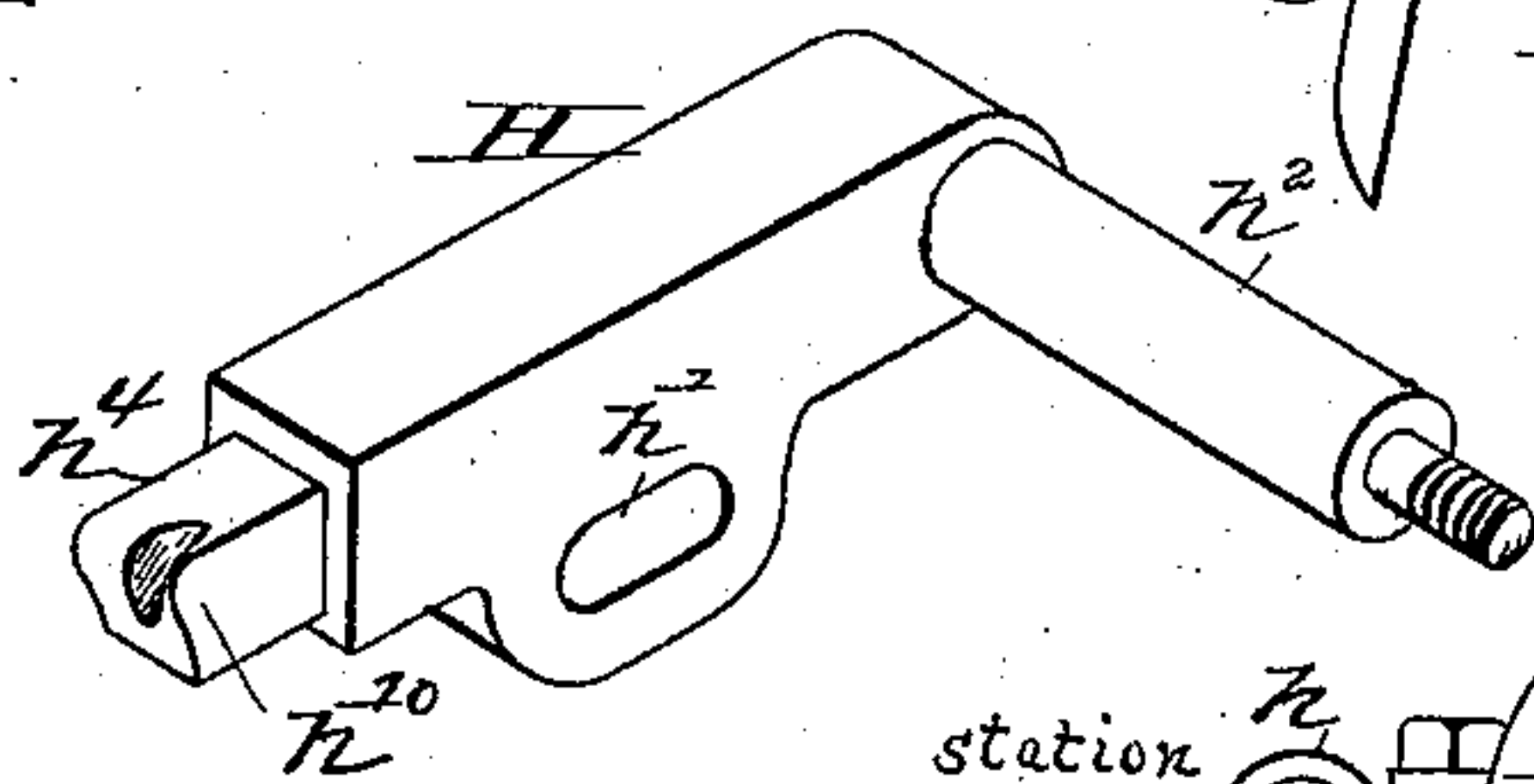


Fig. 6.

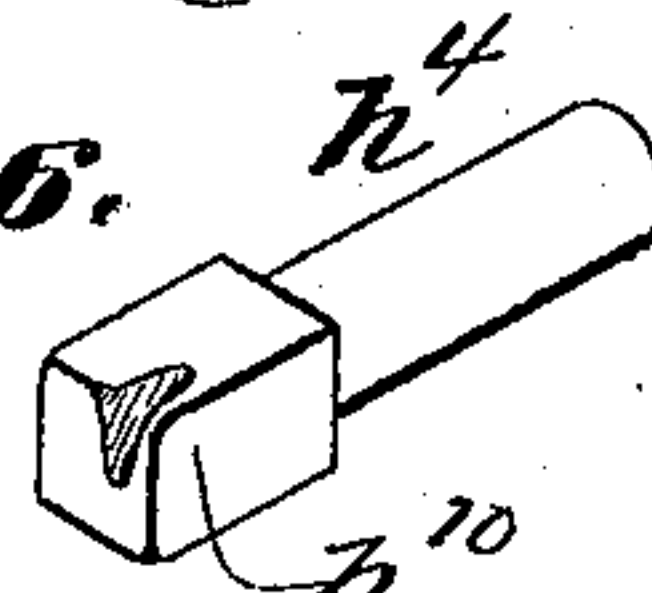


Fig. 2.

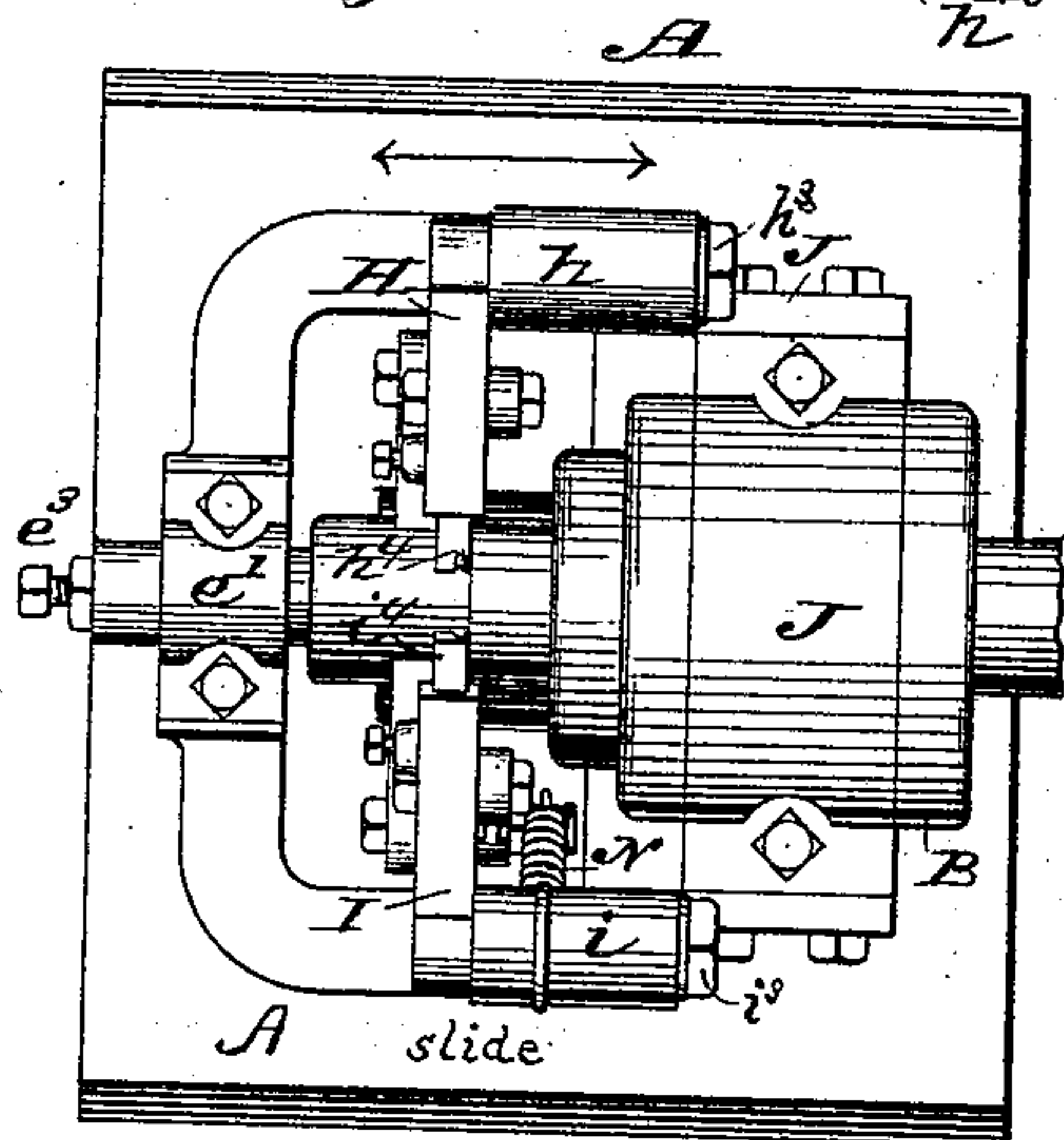


Fig. 4.

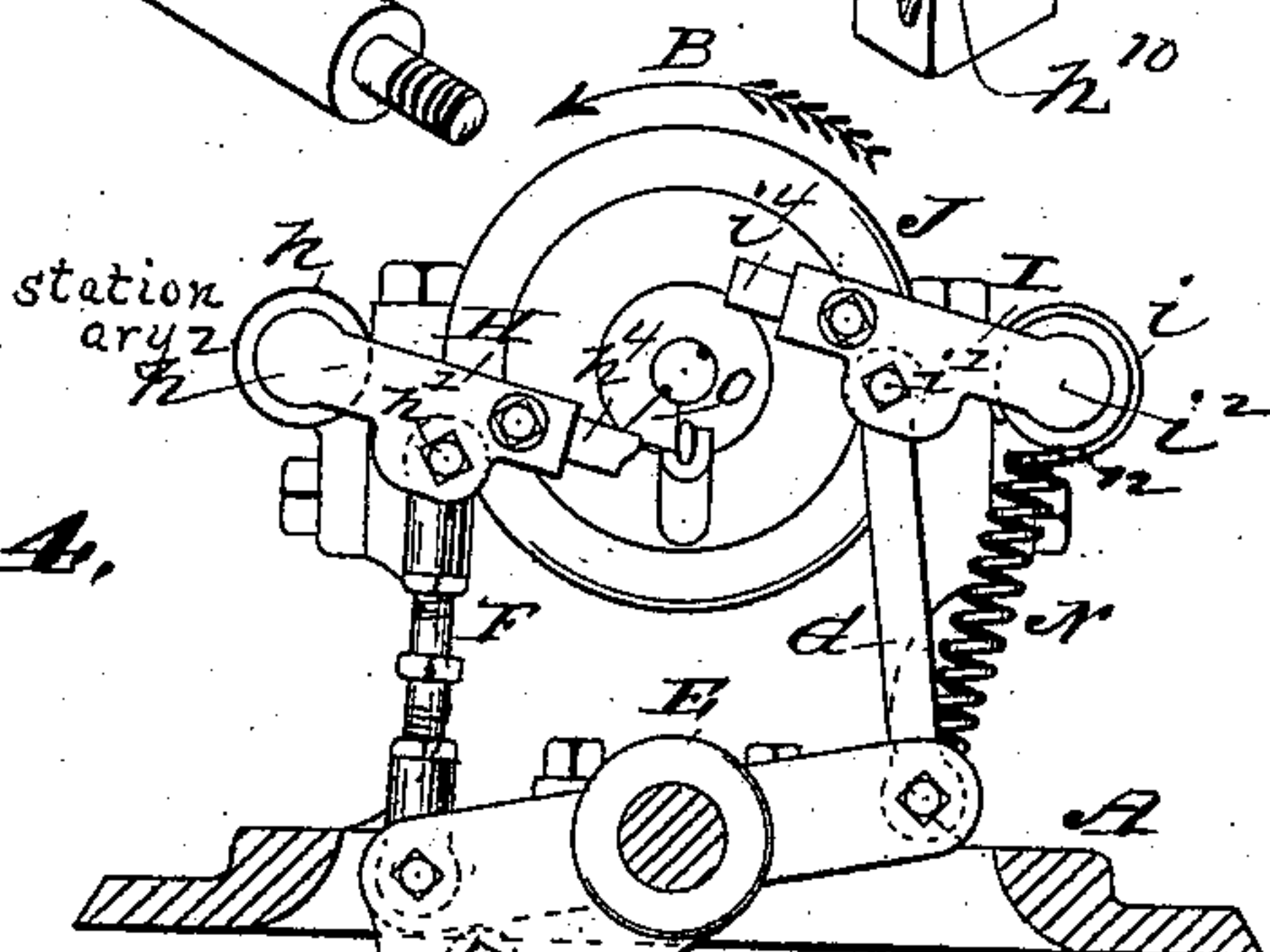
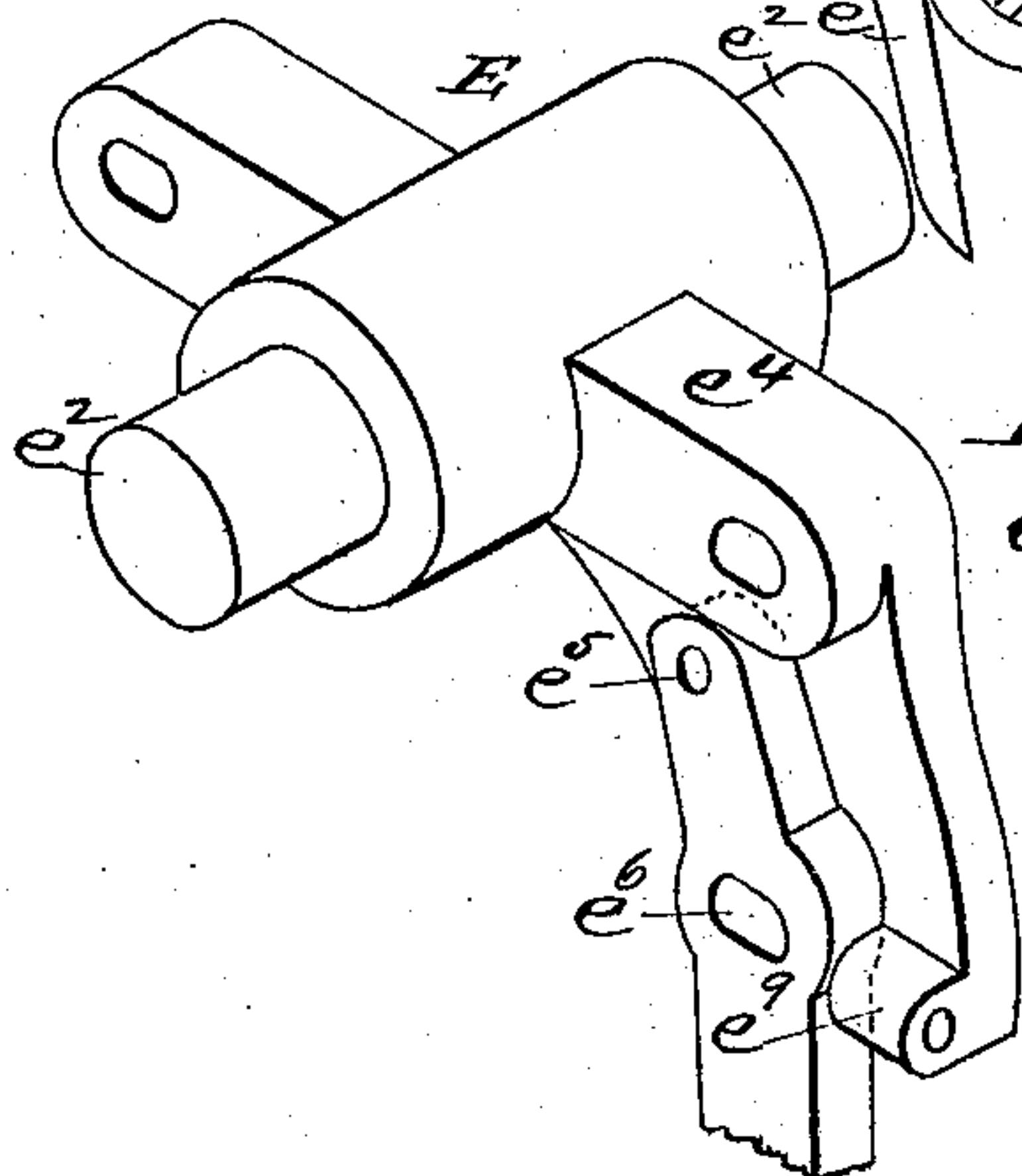


Fig. 7.



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Fig. 8.

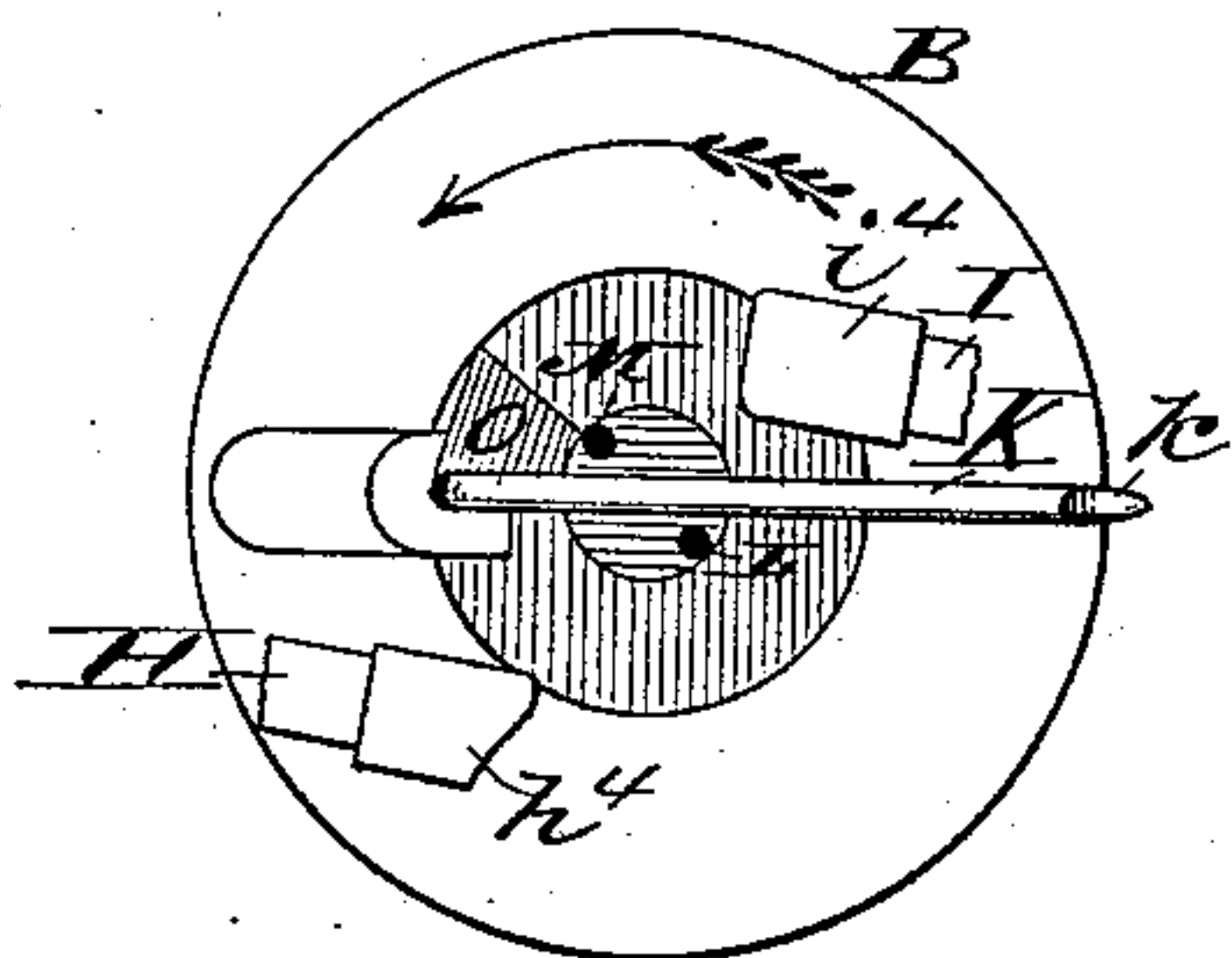


Fig. 9.

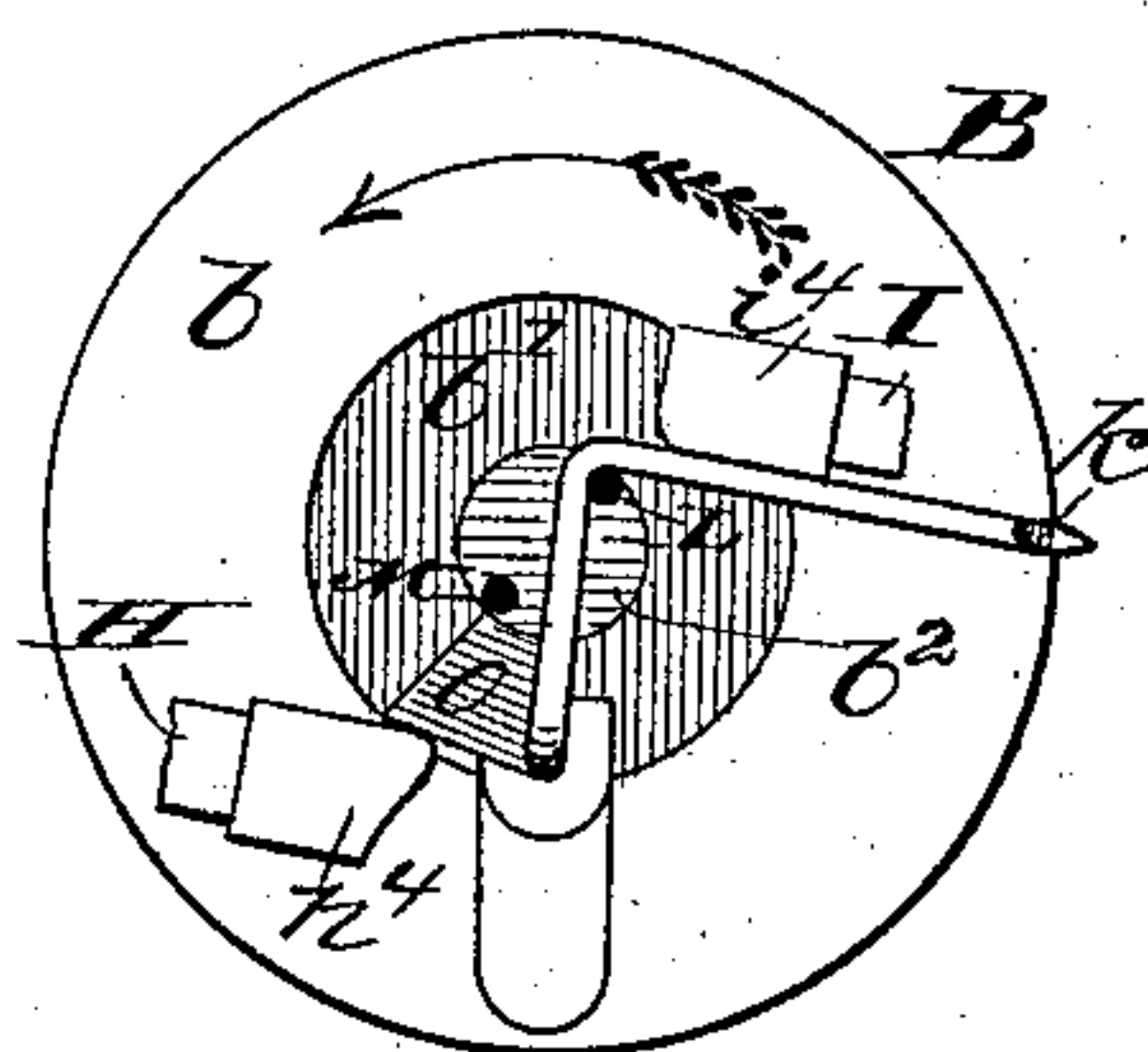


Fig. 10.

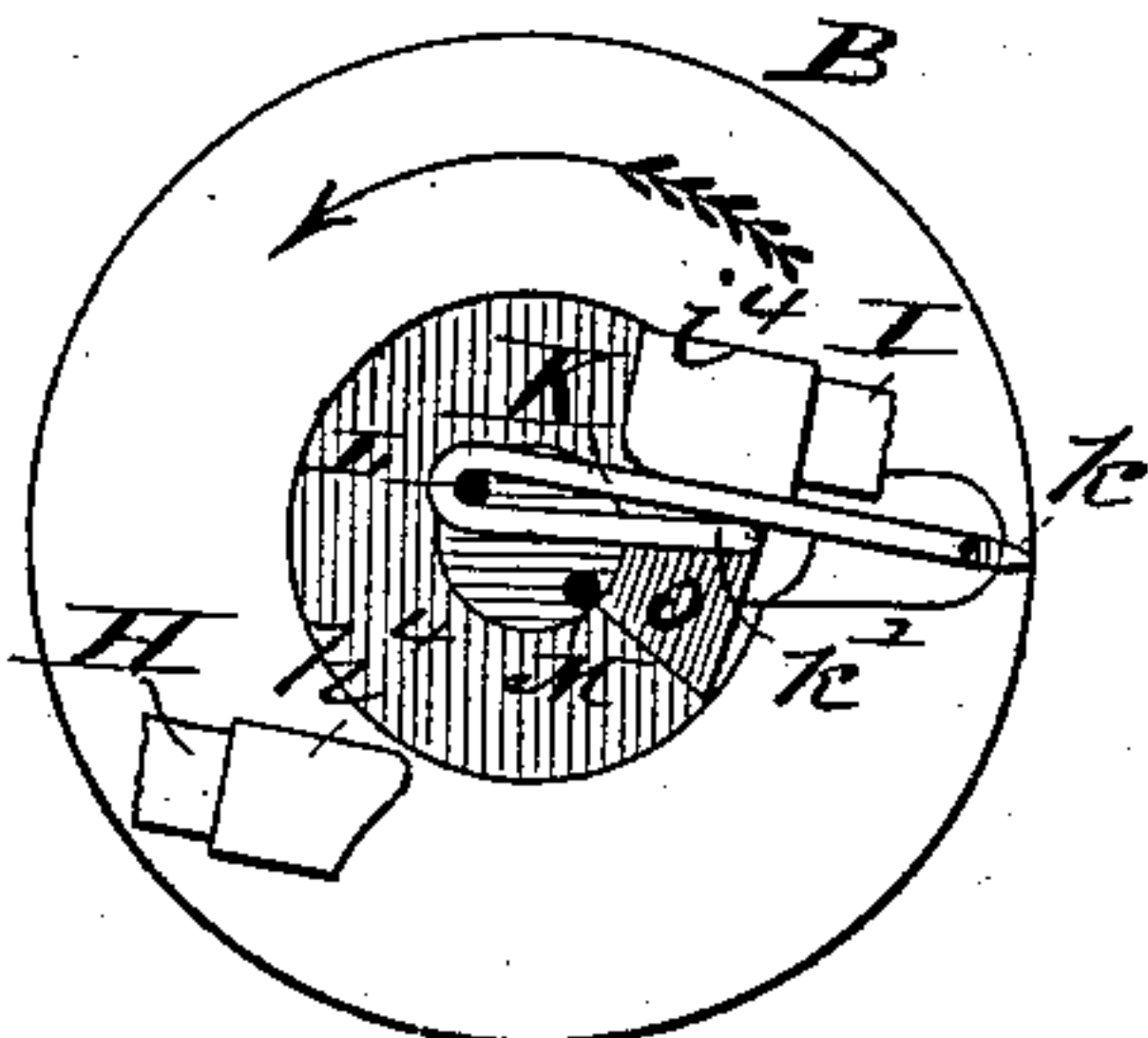


Fig. 11.

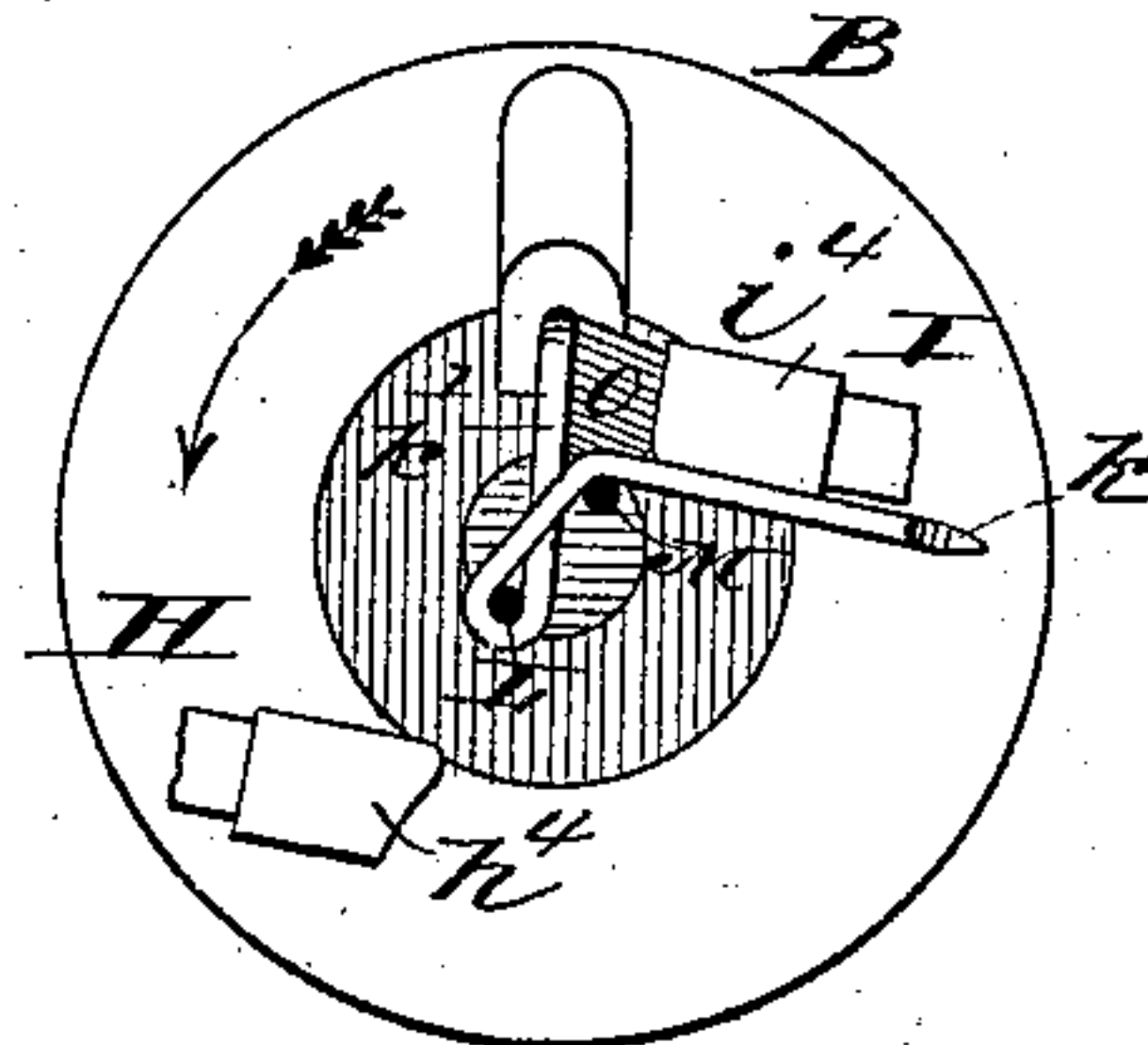


Fig 12.

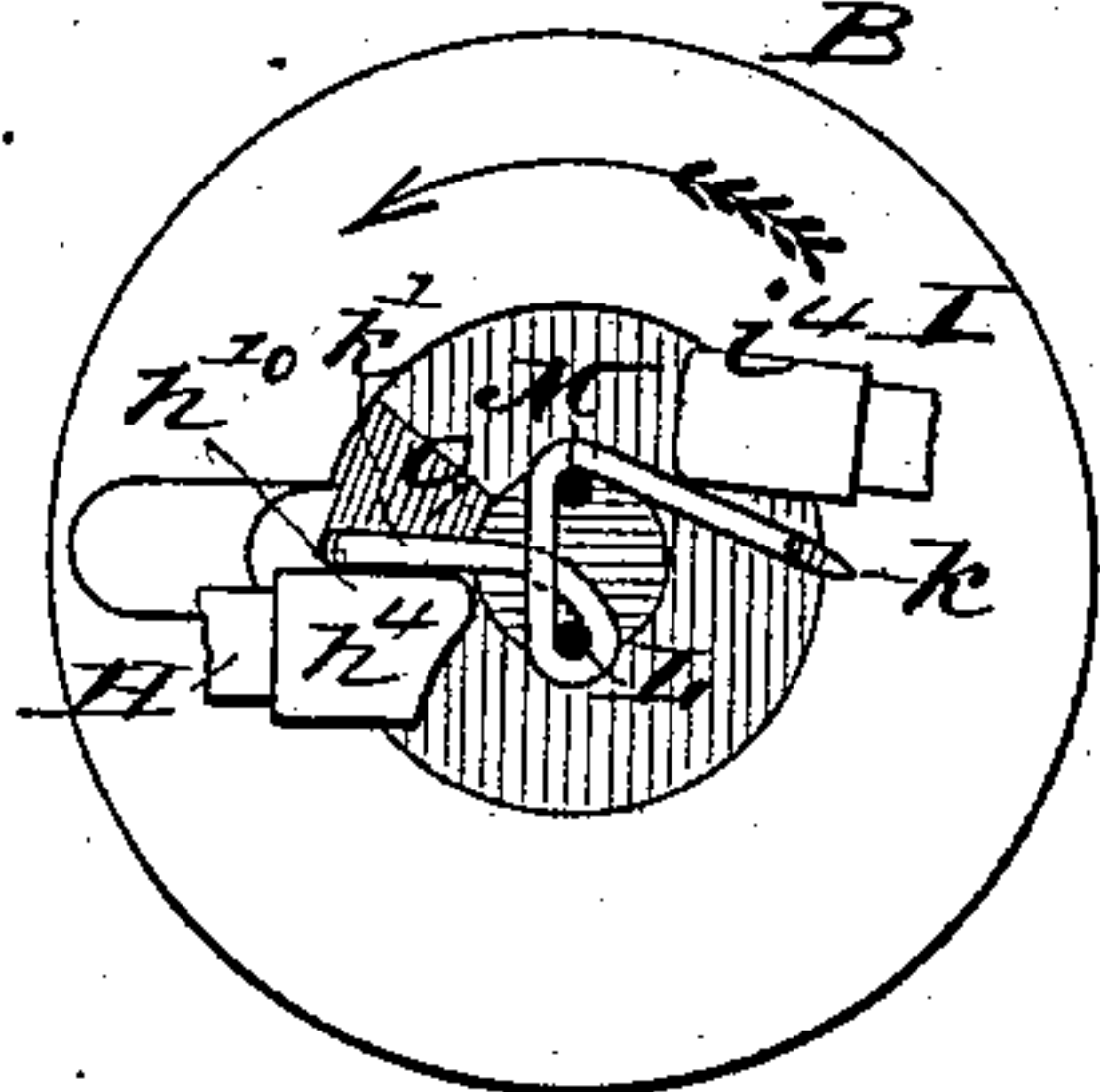
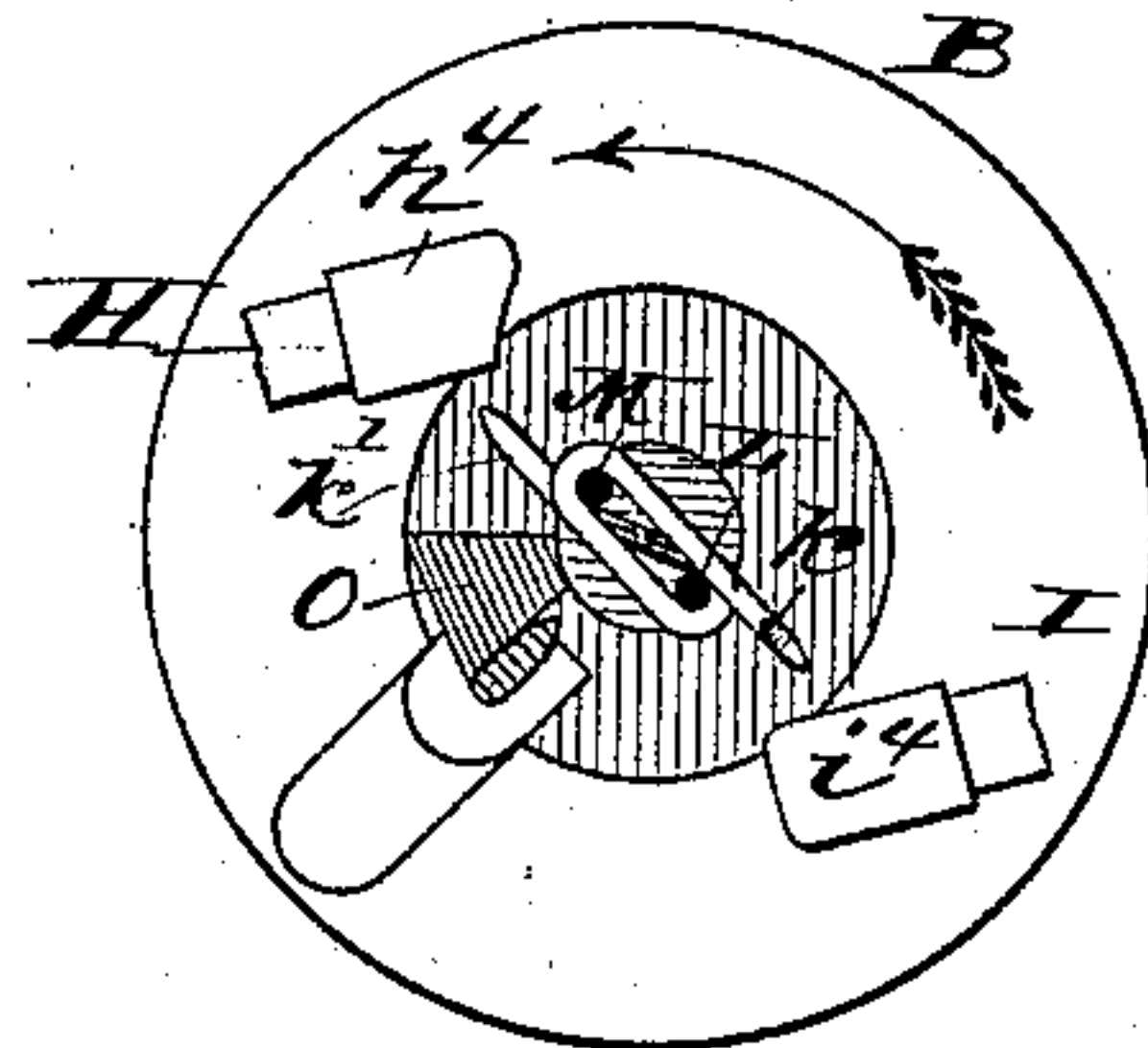


Fig. 13.



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UNITED STATES PATENT OFFICE.

GODFREY H. LASAR, OF ST. LOUIS, MISSOURI.

BARBED-WIRE MACHINE.

SPECIFICATION forming part of Letters Patent No. 322,546, dated July 21, 1885.

Application filed August 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, GODFREY H. LASAR, of St. Louis, Missouri, have made a new and useful Improvement in Barbed-Wire Machines, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a side elevation showing that portion of the barbed-wire machine with which the present improvement is immediately connected. Fig. 2 is a plan; Fig. 3, a vertical cross-section on the line 3 4 of Fig. 1; Fig. 4, another section on the line 3 4 of Fig. 1, but showing the parts in a different position; Fig. 5, a view in perspective looking from above and from the rear of one of the barb-formers attached to its arm; Fig. 6, a view in perspective of one of the barb-formers; Fig. 7, a view in perspective of the rock-lever; and Figs 8 to 13, front elevations of the twister, showing in the order of number of the figures the successive positions of the twistors and barb-formers in the formation of a barb.

The same letters of reference denote the same parts.

The present invention is an improvement in that class of barbed-wire machines wherein the strand-wires and barbed wires are fed longitudinally through the twister—for instance, as in the barbed-wire machine patented by me April 1, 1884.

The invention relates to the mechanism used in forming the barb and in intertwining it upon and attaching it to the strand-wires.

Only that portion of the machine is exhibited which is essential to an understanding of the improvement.

A represents the slide carrying the twister B, the slide and twister having the customary reciprocating longitudinal movement in the machine, the twister being rotated in the usual manner, and the twister being composed of a head, *b*, barrel *b'*, and core *b''*, as in the construction above referred to.

C represents a shaft extending longitudinally in the machine beneath the bed-plate and slide. It is adapted to be rotated in the direction of the arrow *c*, Fig. 4. Its bearings and the means for rotating it are not shown, as they are such as are used in previous and well-known constructions.

The shaft carries a cam, D, which, in the rotation of the shaft, encounters the arm *e* of a rock-lever, E, Figs. 1, 3, 4, 7, causing the arm and rock-lever to be moved from the position shown in Fig. 4 into that of Fig. 3. The rock-lever is adapted to be vibrated in one or more bearings, *e' e'*, upon the slide A, the rock-lever having gudgeons *e'' e''*, which rest and rock in the bearings *e' e'*. By means of set-screws *e''' e'''* the rock-lever can be adjusted longitudinally in the slide. The arm *e* is preferably made adjustable in the main portion *e'* of the rock lever, so that it can be set closer to or farther from the cam, to which end the arm is pivoted at *e''* to the part *e'*, and at *e''* is slotted to receive the bolt *e'''*, which serves to clamp the arm to the part *e'* after the arm has been adjusted on its pivot by means of the set-screw *e'''*, which passes through the lug *e''* upon the part *e'*, and bears against the arm, as shown in Figs. 3, 4. In this manner the vibration of the rock-lever can be regulated.

F G represent two links, which serve to connect the two ends of the rock-lever, respectively, with the barb-former arms H I. The barb-former arms, at their outer ends, are pivoted in bearings *h i*, respectively upon opposite sides of the twister, and between their ends, at *h' i'*, respectively, they are jointed to the links F G. The bearings *h i* are attached to the bearing J, in which the twister rotates. The barb-former arms are adapted to turn in their bearings by means of a rounded projection, *h'' i''*, which projects at right angles from the barb-former arm, and turns in the bearings and is secured therein by means of the nut *h''' i'''*. The openings *h i* are elongated, as shown in Fig. 5, to enable the point of connection with the link to be adjustable toward and from the free end of the barb-former arm, and thereby cause the barb-former arm and former to vibrate through a longer or shorter arc, as desired. The former *h'' i''*, or that portion which comes in contact with the wire, is made removable from the barb-former arm. One or both of the links F G are made to be shortened or lengthened, to enable the knife upon the former to meet the knife upon the twister sooner or later, as desired.

The cam D is made sufficiently long to bear upon the rock-lever arm *e* in all positions of the slide.

The operation of the mechanism is indicated by the various positions of the parts shown in Figs 3, 4, and 8 to 13.

As stated, the twister, carrying the knife O, is rotated, and the barb-wire is fed out between the strand-wires in the ordinary manner. The former i^4 , by reason of the outer end, k , of the barb-wire K being carried against it, causes that end to be bent first around one, L, and then around the other, M, of the strand-wires, and the other former, which carries the knife h^{10} , severs the barb-wire and causes the cut end k' to straighten out parallel with the other end, as shown in Fig. 13.

The spring N serves to draw the rock-lever in the opposite direction and back again into the position shown in Fig. 4. The spring at its upper end, n , is attached to a suitable fixture, such as the bearing i , and at its lower end, n' , to the rock-lever.

I claim—

1. In combination, the shaft C, the spring N, the cam D, the rock-lever constructed and arranged to be vibrated in bearings in the slide A, the links F G, the barb-formers H h^4 I i^4 , and the twister B, substantially as described.

2. The combination of the twister B and the vibrating barb-former arms H I, said barb-former arms being pivoted at their outer ends on opposite sides, respectively, of the twister, and having at points between their ends connections leading to a vibrating rock-lever.

3. The combination of the twister B, the vibrating barb-former arms H I, the links F G, the slide A, and the vibrating rock-lever E, the bearing or bearings of said rock-lever being below said twister, and said links leading from the barb-former arms downward to said rock-lever on opposite sides of its bearing or bearings, substantially as described.

4. The combination of the slide A, the rock-lever E, the shaft C, and the cam D, the arm e of said rock-lever being adjustable therein, substantially as described.

5. The rock-lever E, adjustable longitudinally in the slide A, as and for the purpose specified.

GODFREY H. LASAR.

Witnesses:

C. D. MOODY,
J. W. HOKE.