

D. N. GOFF.  
Lining Percussion Caps.

No. 67,189.

Patented July 30, 1867.

Fig. 1.

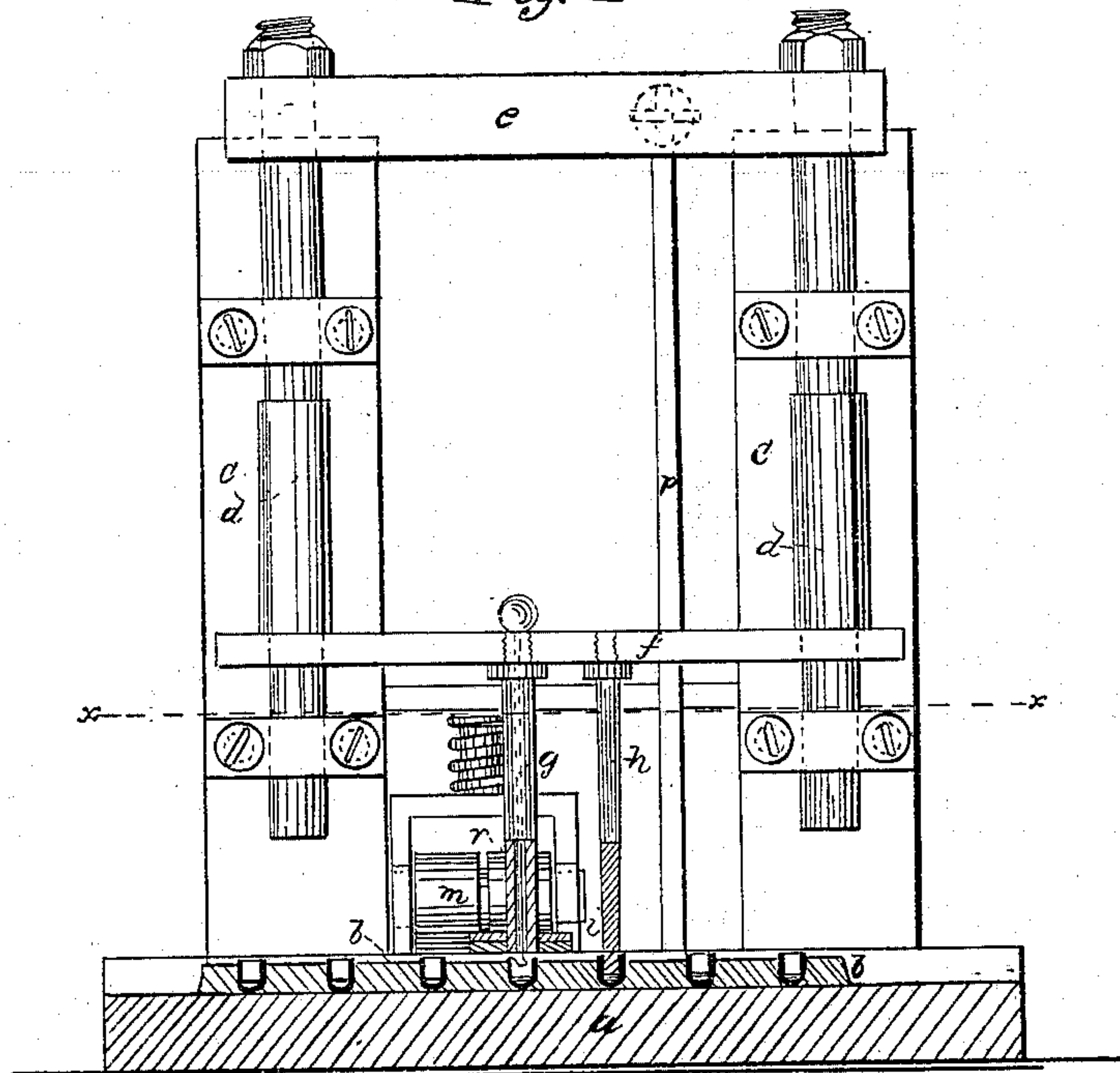
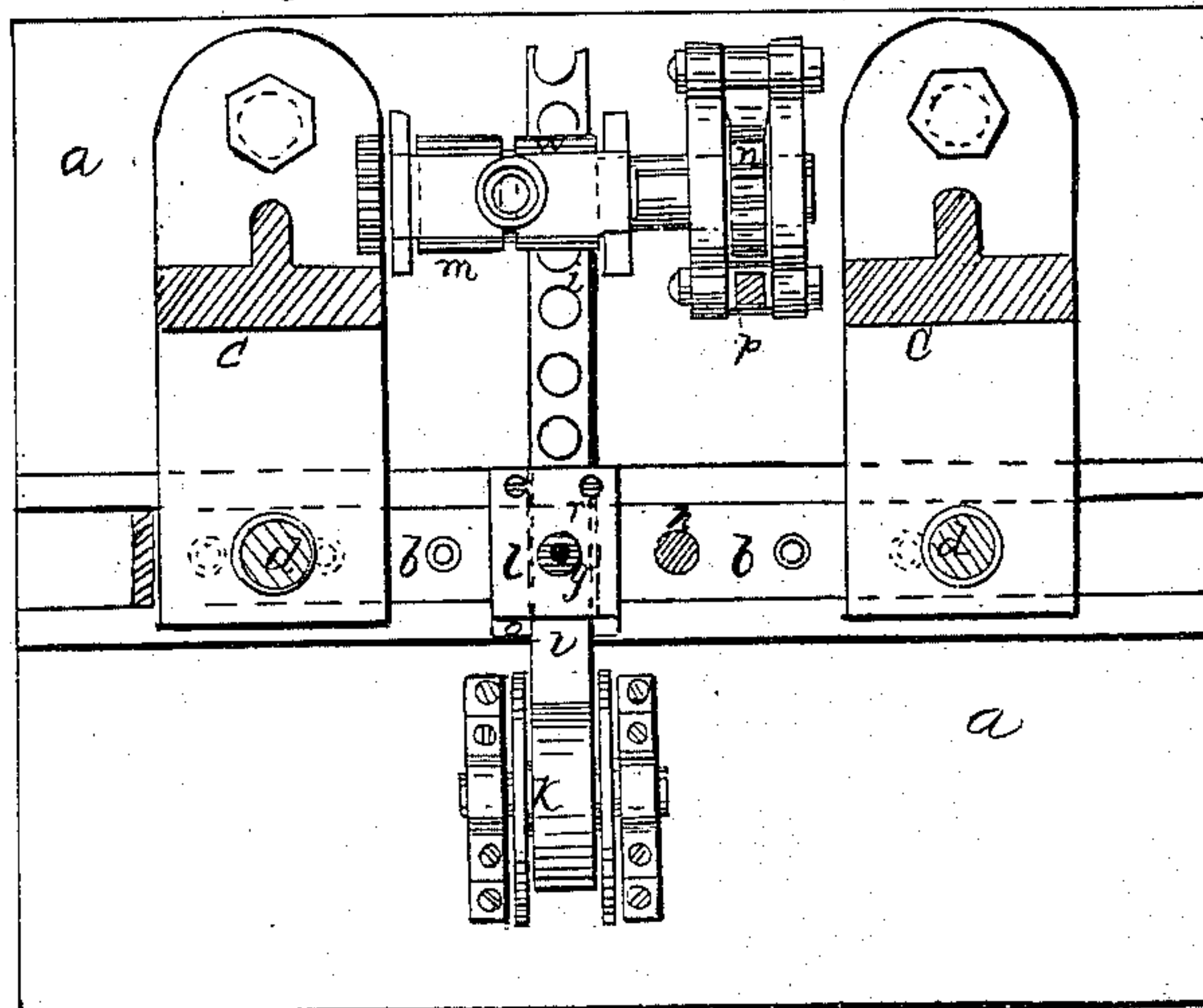


Fig 2.



Witnesses

Geo. D. Walker  
Chas. H. Smith

Inventor

D. N. Goff  
per L. M. Cornell

# United States Patent Office.

DERICK N. GOFF, OF WOLCOTTVILLE, CONNECTICUT.

*Letters Patent No. 67,189, dated July 30, 1867.*

## IMPROVEMENT IN MACHINE FOR LINING PERCUSSION-CAPS.

*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, DERICK N. GOFF, of Wolcottville, in the county of Litchfield, and State of Connecticut, have invented, made, and applied to use, a certain new and useful improvement in Foil-Lining Percussion-Caps; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is an elevation of my foil-lining machine, the bed, dies, and punches being in section; and

Figure 2 is a sectional plan of the machine below the line *x x*.

Similar marks of reference denote the same parts.

Percussion-caps have heretofore been lined with foil by a punch that cut out a disk of foil and pressed it down upon the fulminate in the cap. This rendered it necessary that the punch and the disk it cut out should be smaller than the interior diameter of the cap, hence the edges of the fulminate were not always properly lined with the foil.

The nature of my said invention consists in a punch and die that cut out a disk of foil rather larger than the interior of the cap, in combination with a punch that presses such disk to place in the cap, as presented by a carrier-plate or slide. By this device the foil covers the fulminate in the most perfect manner, and extends to the interior of the cap, insuring a perfectly water-proof lining to the fulminate.

In the drawing *a* represents the bed of the machine, *b* a slide or plate containing recesses or dies for the reception of the percussion-caps. This plate is moved progressively, so as to present the caps successively for the reception of the disk of foil, and then to the pressing-punch, and for this movement any competent mechanism may be employed. *c* is a head-block, in which the rods *d* slide vertically, as moved by competent devices applied to the cross-bar *e*. *f* is a bar between the rods *d*, carrying the punches *g* and *h*. The punch *g* acts to cut out a disk of foil from the strip *i* and force it through the die *o* and deliver it within the percussion-cap beneath. The next movement of the plate *b* brings the cap to the punch *h*, to press said disk tightly down upon the fulminate and properly line the cap, as aforesaid. The strip of foil *i* is supplied from a reel, *k*, or otherwise, and passes below the plate *l* that prevents the punch *g* lifting the same, and said strip is drawn along progressively by a pair of rollers, *m*, acted upon by a ratchet and pawl, *n*, moved by the rod *p*. In order to prevent the disk of foil adhering to the end of the punch *g*, I make use of pusher *r*, that passes up through a hole in the punch *g*, and is of sufficient weight to deliver the disk into the cap after it is cut out, but not heavy enough to injure the foil by resting upon the strip previous to the disk being cut out.

What I claim, and desire to secure by Letters Patent, is—

The punch *g*, to cut out the disk of foil, in combination with the pressing-punch *h*, and mechanism for presenting the percussion-caps successively, substantially as set forth.

In witness whereof I have hereunto set my signature this fourteenth day of March, 1867.

DERICK N. GOFF.

Witnesses:

H. S. BARBOUR,

C. F. CHURCH.