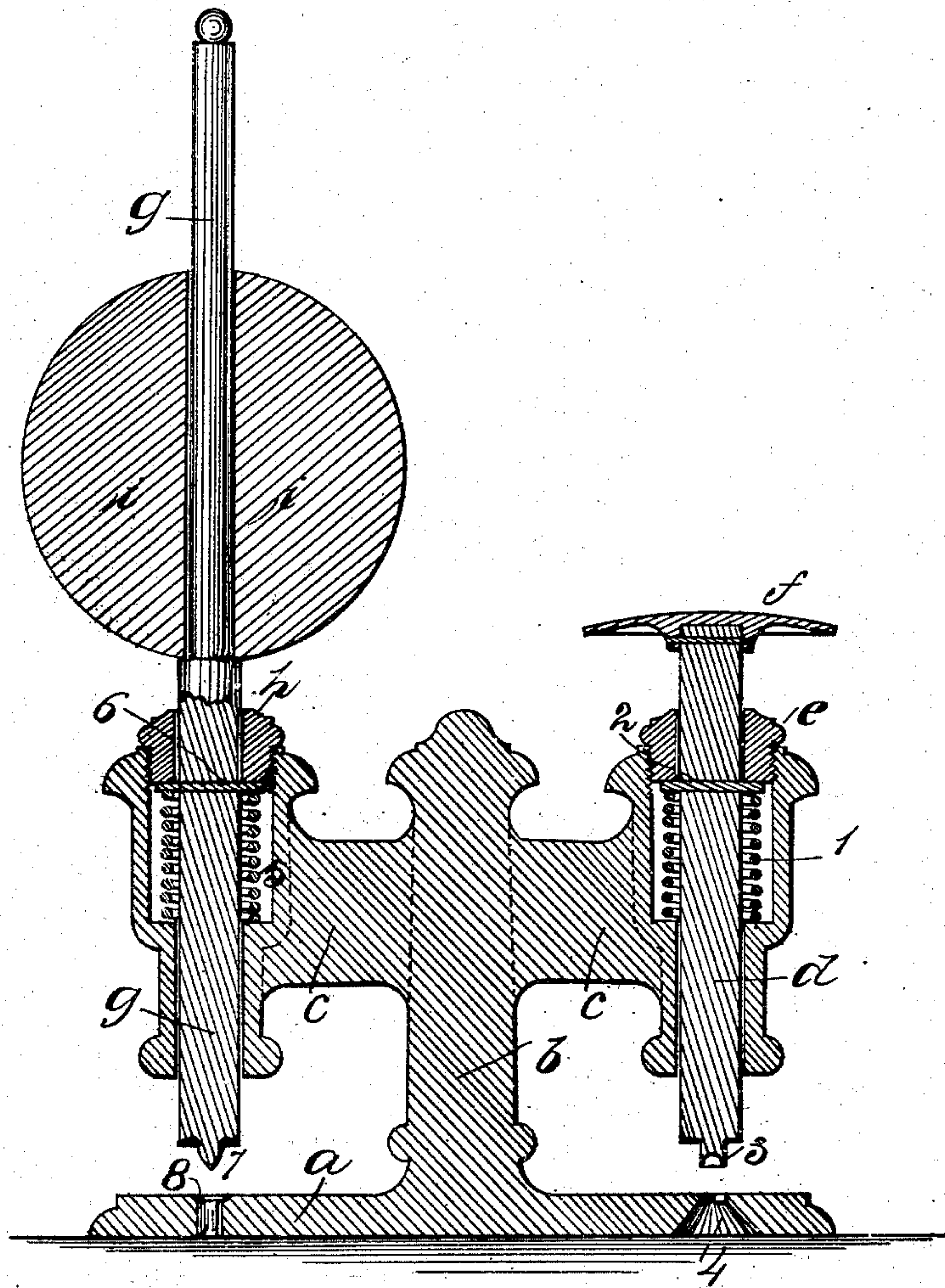


S. J. SMITH.  
EYELET MACHINE.

No. 32,088.

Patented Apr. 16, 1861.



Witnesses:  
Lemuel W. Perrell  
Chas. H. Smith

Inventor:  
Sam. J. Smith

# UNITED STATES PATENT OFFICE.

SAMUEL J. SMITH, OF NEW YORK, N. Y.

## IMPROVEMENT IN EYELET-MACHINES.

Specification forming part of Letters Patent No. 32,088, dated April 16, 1861.

*To all whom it may concern:*

Be it known that I, SAMUEL J. SMITH, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Eyelet-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, in which I have represented a vertical section of my improved eyelet-machine.

In the ordinary eyelet-machines a cam or lever is used to force the punch or cutter through the material. This, however, is found to be objectionable because such cam or lever tends to press the punch to one side and interfere with the same entering the hole or die correctly.

The nature of my said invention consists in an arrangement of percussion die or cutter constructed in a cylindrical form and applied in such a manner that said die or cutter is free to turn around while in use and be perfect in its operation in the hole or die, instead of constantly wearing in one direction and becoming untrue.

In order to produce the necessary power for the purposes of cutting or striking up the eyelet, I make use of a perforated ball sliding upon the circular stock of the die or cutter, so as to give a blow or concussion sufficiently powerful to either perforate the material with the cutter or strike up the eyelet with the punch or die.

In the drawing, *a* is the base of the press, and *b* is a standard.

*c* is an arm perforated vertically, as represented, receiving the cylindrical stock *d* of

the cutter 3, and this arm is adapted to contain the helical spring 1, taking the pin 2 to elevate the cutter, and also the cap *e*, that is screwed into the arm, as shown, to guide the stock or stem *d* of the cutter 3, and 4 is the hole or opening into which the cutter passes as the perforation of any article is accomplished by a blow upon the end of *d*. It will now be seen that the whole of the die 3, shank *d*, and cap *e* can be turned, and that the parts in the arm *c* can be bored out. Thus the construction is simple and cheap, but the action of the parts will be perfectly true. The die 7 (acting in the hole 8 to strike or swage up an eyelet in the ordinary way) is upon the stem *g* in the other arm *c*, and is provided with the spring 5, pin 6, and cap *h*, the same as the parts *d*, *e*, 1, and 2, except that the stem *g* is extended up and receives upon a shoulder loosely the perforated ball *i*, by elevating which and then striking it down forcibly will produce a blow or concussion sufficient for either perforating or striking up the eyelets. The stem *d* may either be provided with the disk *f* to be struck by hand or with the ball *i*, as circumstances may require.

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

The arrangement of the cylindrical stem *d* or *g*, springs 1 or 5, and cap *e* or *h* in the perforated arm *c*, as specified, and the percussion-ball *i* in combination therewith, as set forth.

In witness whereof I have hereunto set my signature this 2d day of March, 1861.

SAML. J. SMITH.

Witnesses:

LEMUEL W. SERRELL,  
CHAS. H. SMITH.