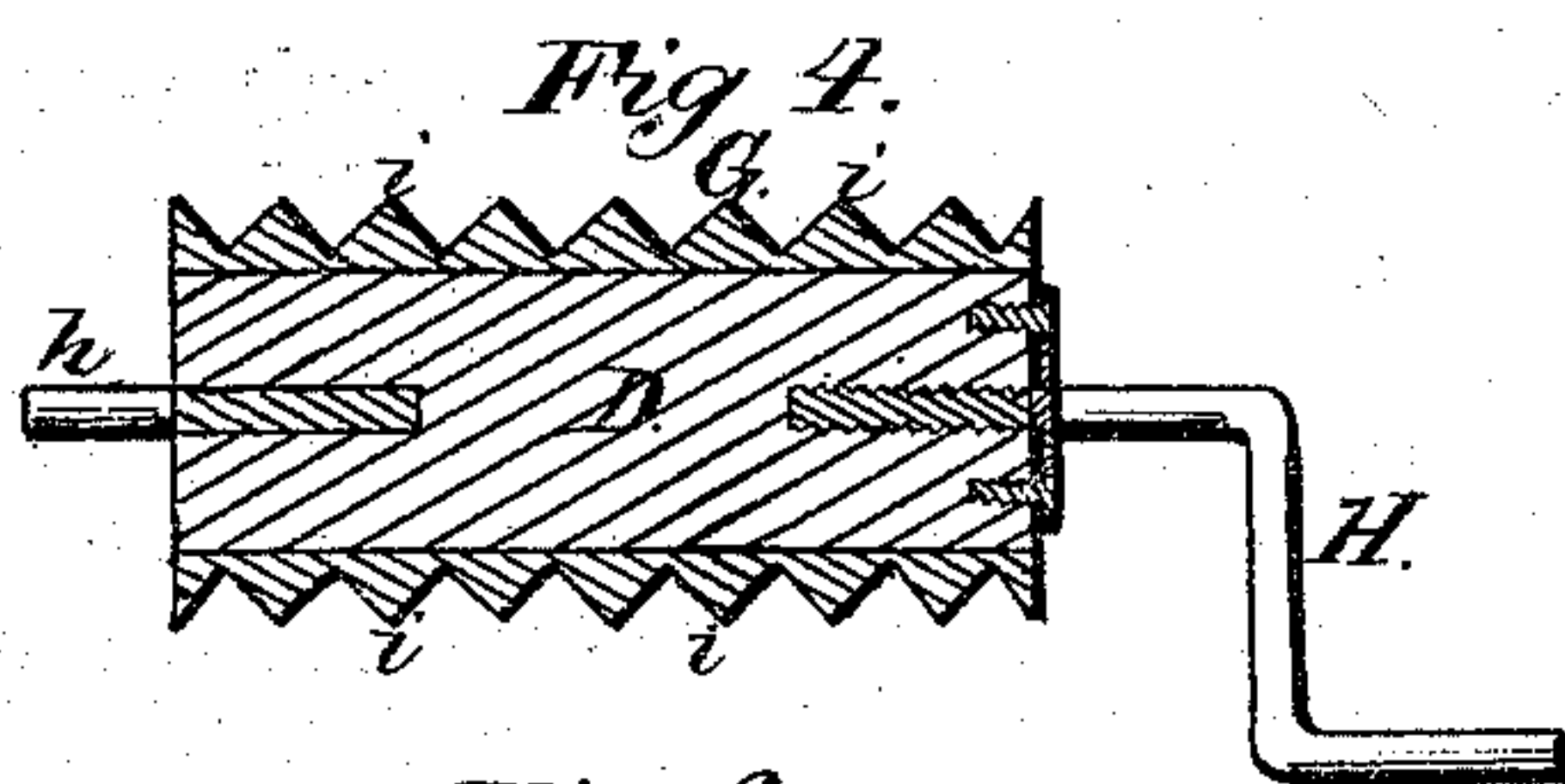
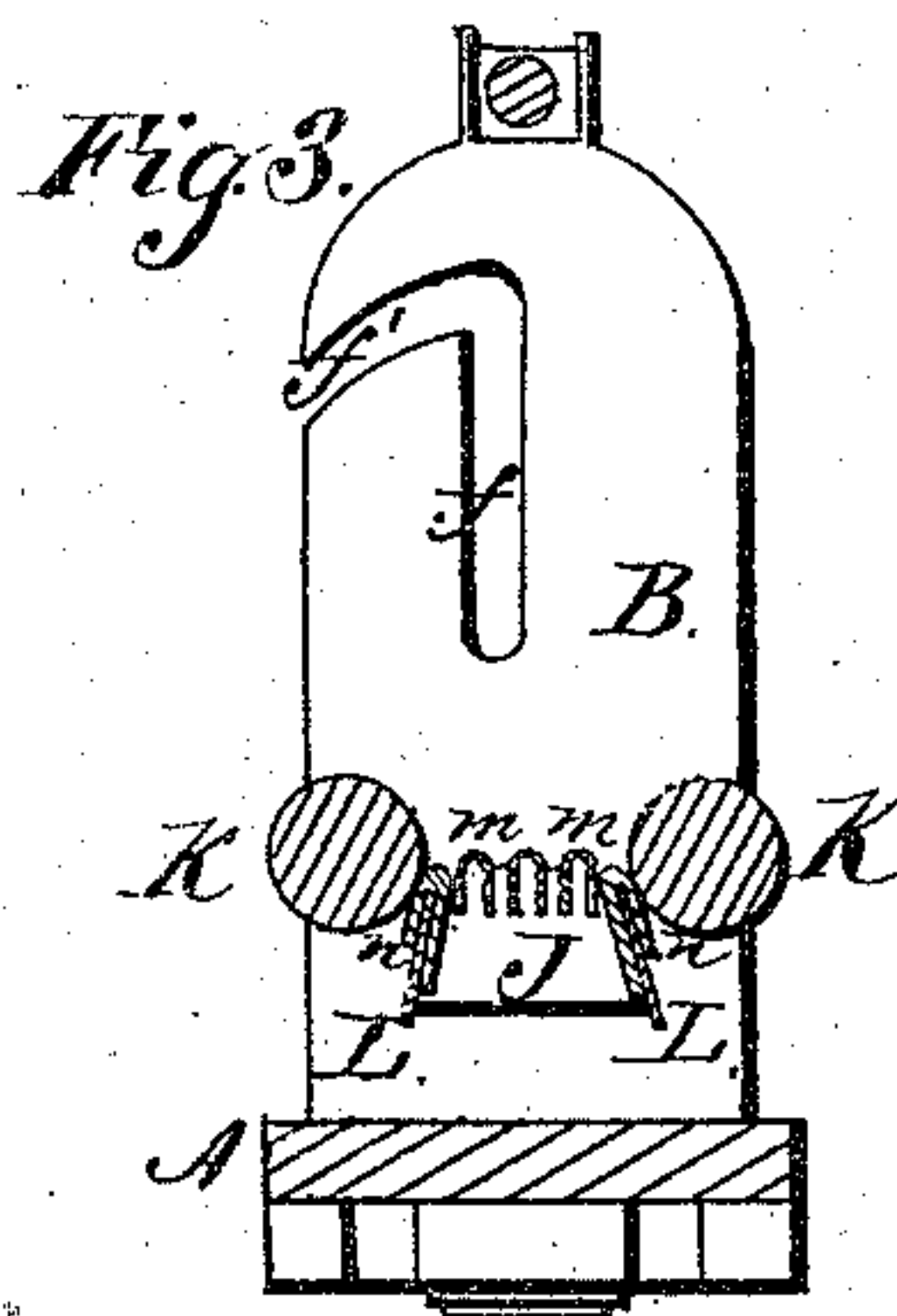
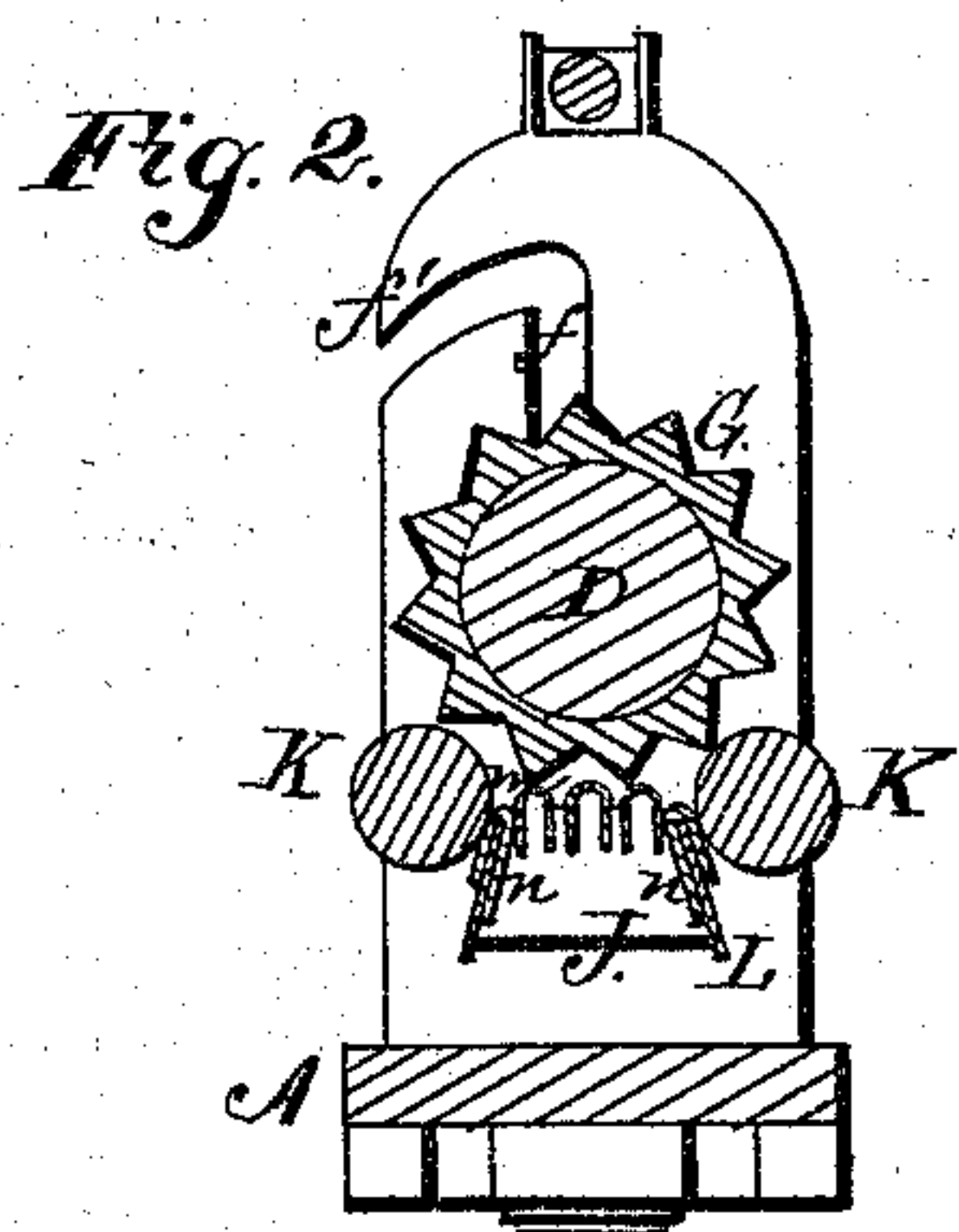
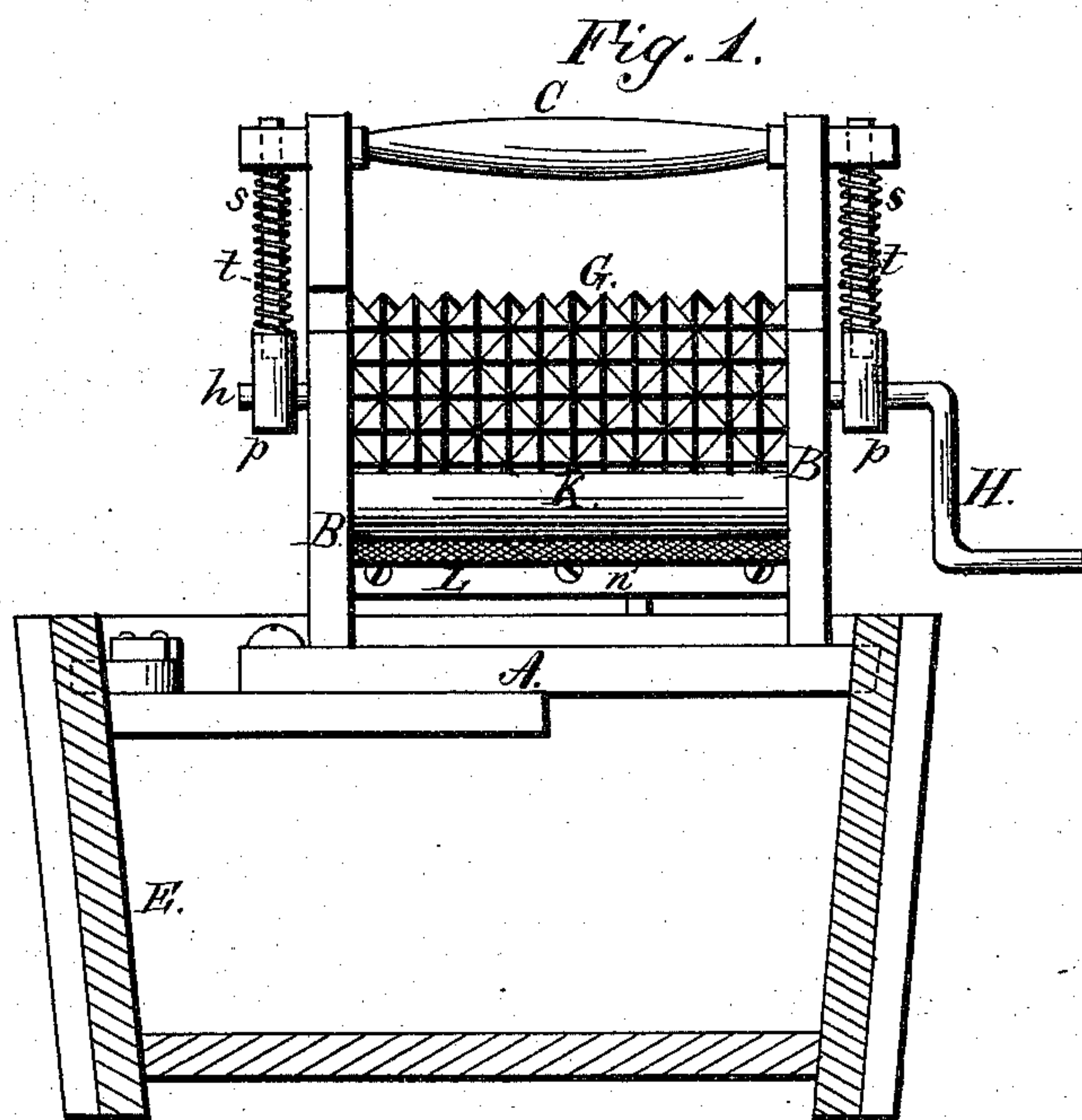


J. A. ENO.  
Washing-Machines.

No. 156,338.

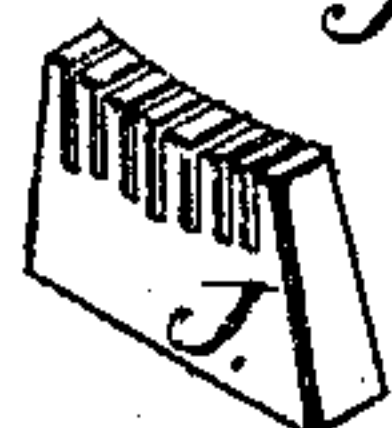
Patented Oct. 27, 1874.



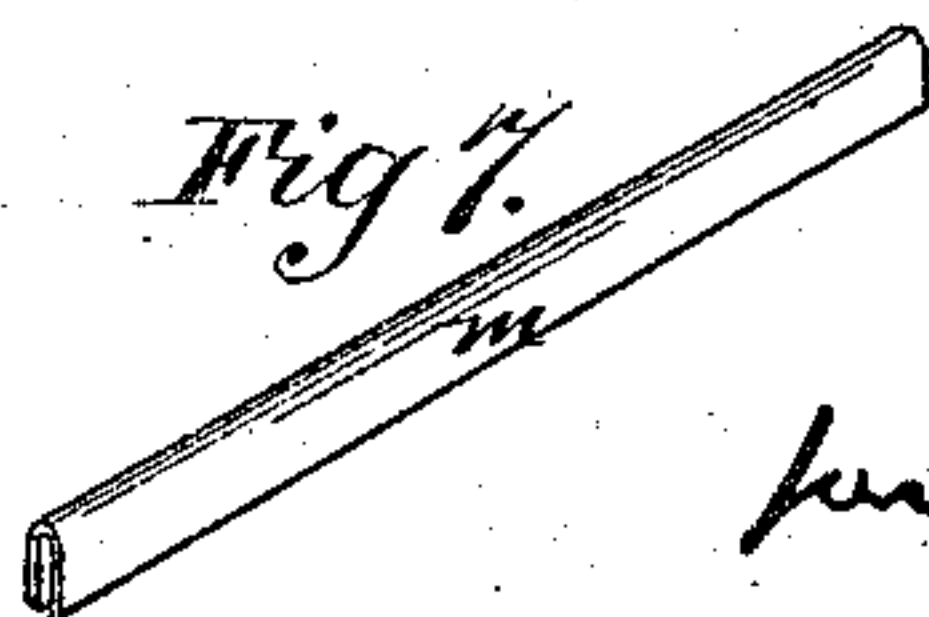
WITNESSES

*E. H. Schott.*  
*C. F. Everett*

*Fig. 6.*



*Fig. 7.*



INVENTOR

*Joseph A. Eno,*  
*per Alexander Vanarsdall*  
Attorneys

# UNITED STATES PATENT OFFICE.

JOSEPH A. ENO, OF COUNCIL BLUFFS, IOWA, ASSIGNOR TO MRS. A. C. ENO,  
OF SAME PLACE.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **156,338**, dated October 27, 1874; application filed  
May 28, 1874.

*To all whom it may concern:*

Be it known that I, JOSEPH A. ENO, of Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a washing-machine, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my washing-machine. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a similar section with the washing-cylinder removed. Fig. 4 is a longitudinal section of the washing-cylinder. Fig. 5 is an end view of the same. Figs. 6 and 7 show parts of the wash-board.

A represents the base of my washing-machine secured to a tub, E, by any suitable means. On the base A are two upright standards, B B, connected at their upper ends by a cross-bar, C, the ends of which extend beyond the standards, as shown in Fig. 1. In the standards B B are slots *f' f* for the reception of the journals of the washing-cylinder. This cylinder is formed of a wooden cylinder or roller, D, with an exterior rubber covering, G. The outside surface of the rubber G is corrugated diagonally in both directions, forming diamond-shaped projections *i i* for rubbing the clothes on the wash-board underneath. In one end of the cylinder D G is inserted a short rod,

*h*, forming the journal at the end. The other journal is formed by the crank H, which is screwed into the opposite end of the cylinder and prevented from coming loose by means of a plate or washer, I, fitting on a square part of the crank, and said plate, after the crank is screwed in, is fastened to the wood part D of the cylinder by screws, as shown in Fig. 4. The wash-board underneath this cylinder is composed of two end pieces, J J, connected on each side by an inclined board, L, and fastened to the inner sides of the standards B B. These end pieces are slotted, as shown in Fig. 6, and in said slots are inserted bent metallic strips *m m*, which extend the entire length of the washing-cylinder. The upper edges of the strips or boards L are covered with strips *n n*, of rubber or other suitable material. On each side of the wash-board thus constructed is a roller, K, as shown in Figs. 2 and 3.

The washing-cylinder rubs the clothes against this wash-board and rollers, and rubs all the dirt out of them, cleansing them in a rapid and thorough manner without injury to even the finest fabric.

The machine may be adjusted to any sized tub desired.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the slatted pieces J, bent strips *m*, side strips L, provided with rubber strips *n*, and rollers K, with the washing-cylinder D G, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of April, 1874.

JOSEPH A. ENO.

Witnesses:

JNO. H. KEATLEY,  
JAS. D. CROCKWELL.