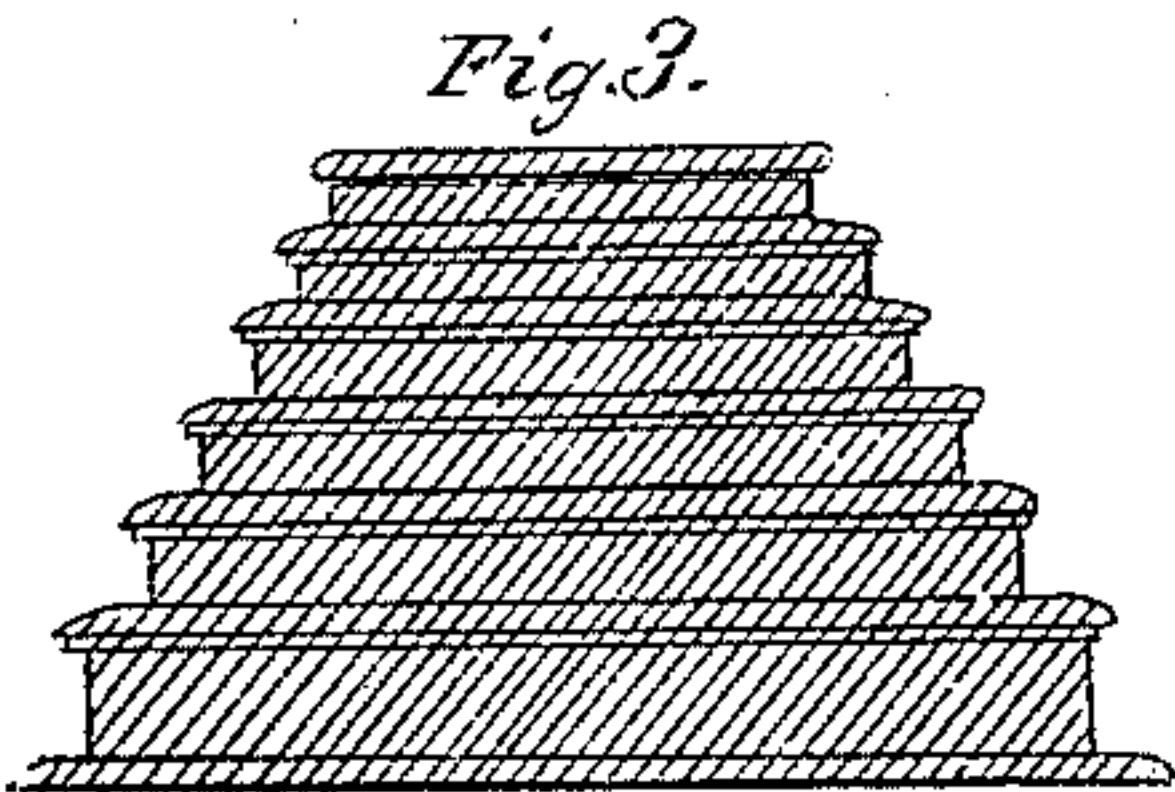
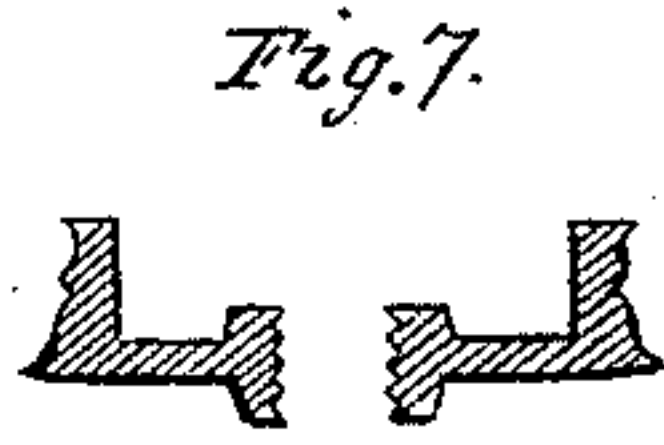
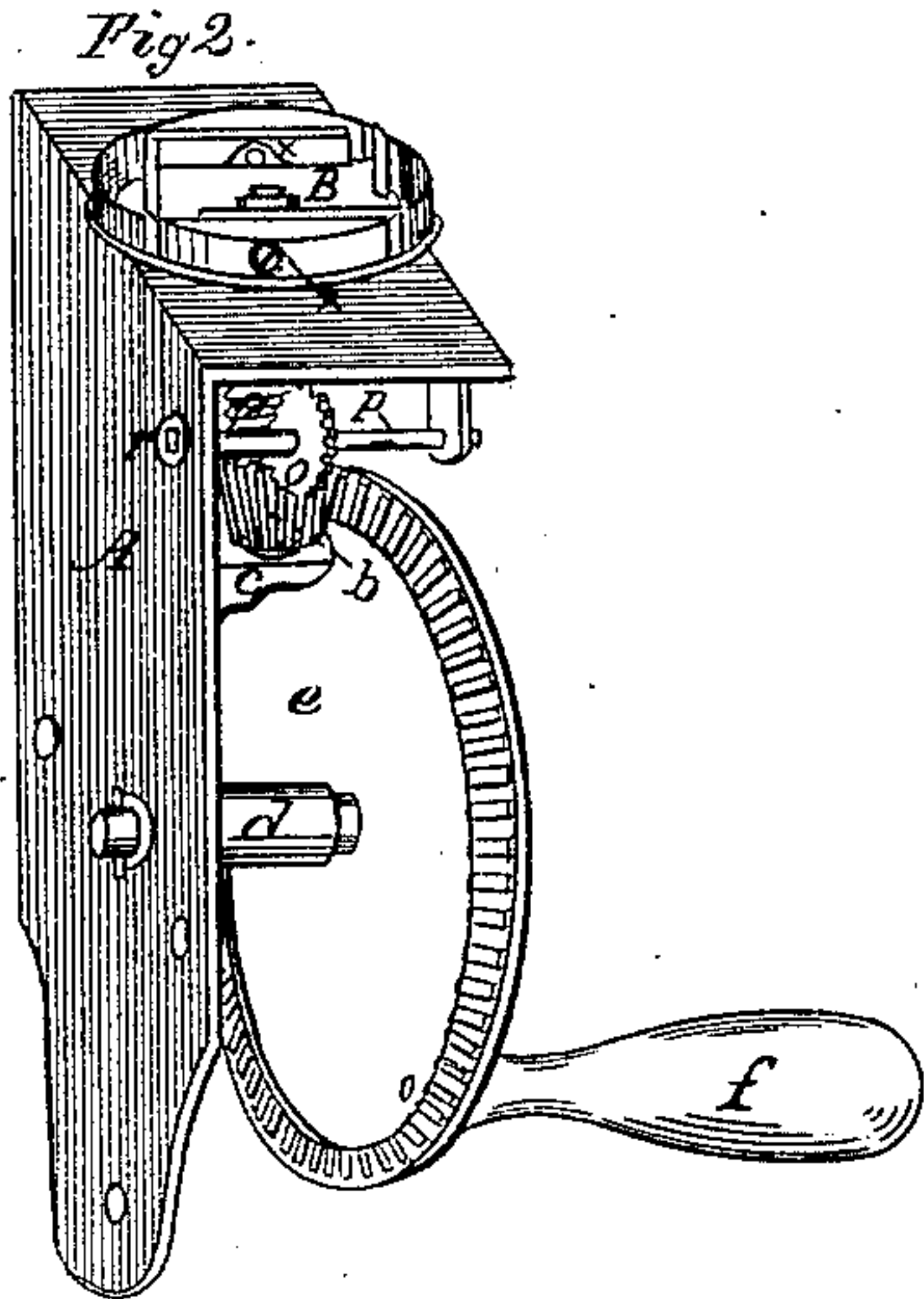
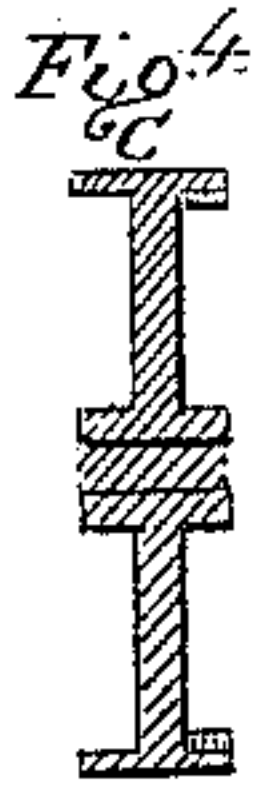
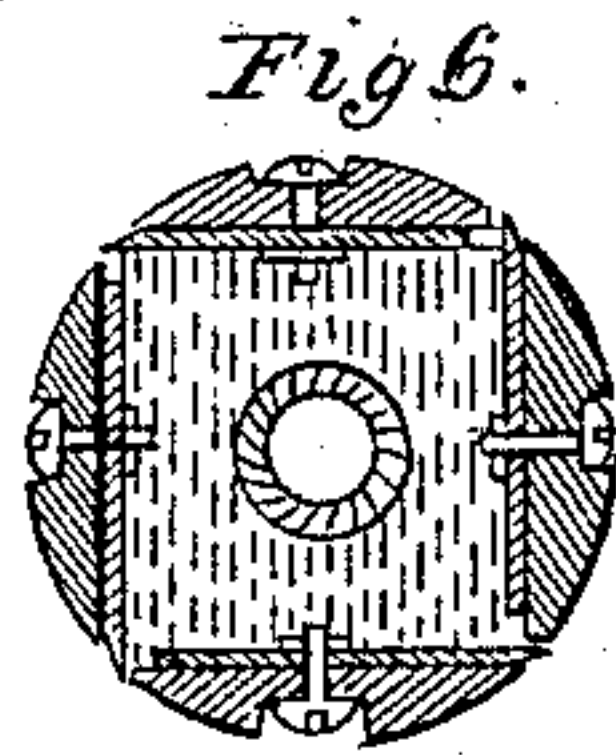
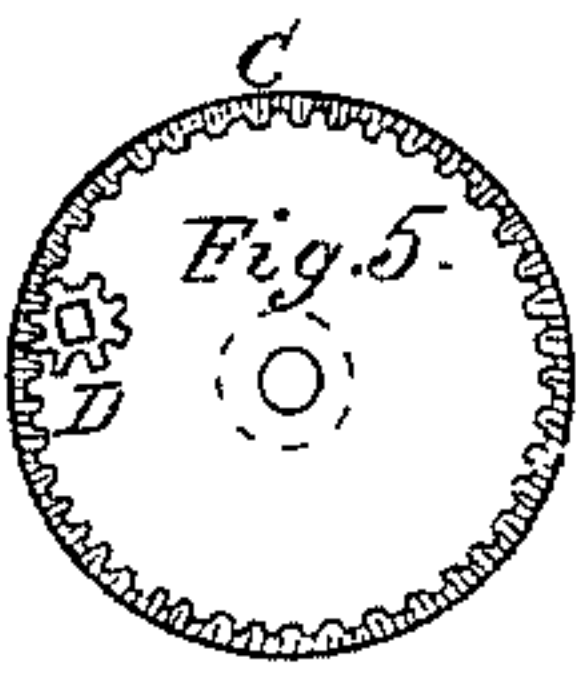
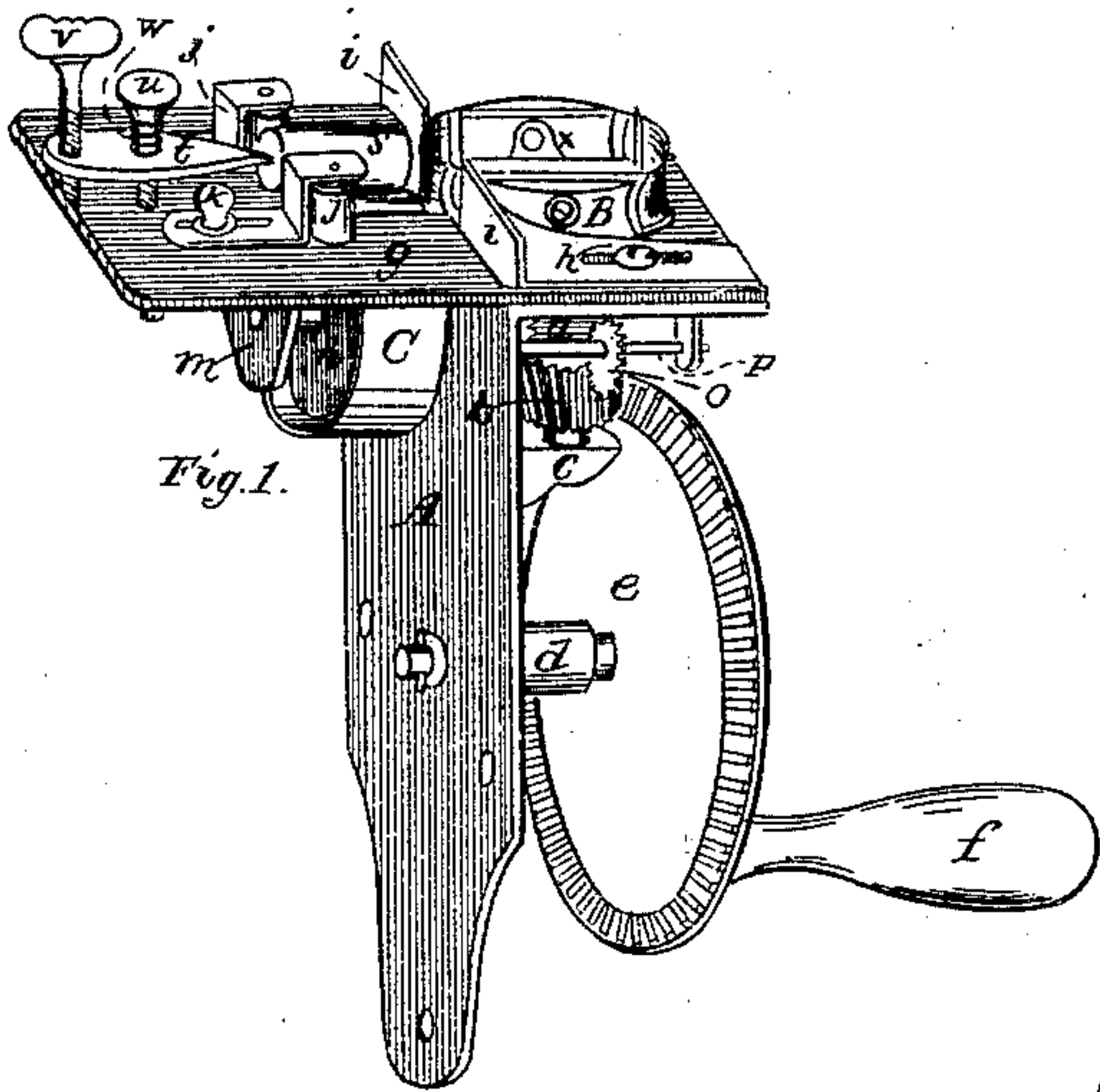


H. Sauerbier,

Edge Plane

No. 24,825.

Patented July 19. 1859.



Wm M Gooding }
Thos W Adams } Witness

Hamp Laverhien

UNITED STATES PATENT OFFICE.

HENRY SAUERBIER, OF NEWARK, NEW JERSEY.

EDGE-PLANE.

Specification of Letters Patent No. 24,825, dated July 19, 1859.

To all whom it may concern:

Be it known that I, HENRY SAUERBIER, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in Edge-Planes for Leather; and I do hereby declare that the following is a full and exact description thereof, reference being had to the drawings which accompany this specification and make part of the same.

The nature of my invention consists, in arranging and adapting means for edge trimming and finishing in the manufacture of shoes and combining the same with facilities for shaping and trimming edges in harness making, such as the edges of traces, &c.

In the drawings Figure 1 is a perspective of the combined machine as used in harness making. Fig. 2 is a perspective view of the same when adapted to the shoe maker's use. Fig. 3 is another head to be put in the place of the cutting head when polishing the edge of the leather is the object of use, it being a circular Corliss or set iron. Fig. 4 is a sectional view of the feed wheel. Fig. 5 is a plane view of the inside gearing in the feed wheel and the pinion which moves it. Fig. 6 is a plane view of the cutter head. Fig. 7 is a sectional view of the same, and Fig. 8 is one of the cutters.

The same letters refer to the same parts in each of the figures.

The bed piece A is made with a flat face to be screwed to the side of a table or bench. It is made in the inverted L form, that there may be a flat top through which the shaft on which the cutter head is screwed, projects, on which shaft is the screw *a* and the pinion *b* the lower journal resting in the projection *c* which is cast fast to the bed plate A. To another projection *d* also cast fast to the bed plate A is attached a small bevel wheel *e* which working on the pinion *b* gives motion to the cutter head B. The handle *f* is attached to the bevel wheel *e*.

A flat plate *g* is held fast to the top of a A by two screws, one of which is seen at *h* Fig. 1 the other being held by the cutter head B. This plate has a part removed to allow the cutter head to project above it, and can be set at any requisite height by interposing packing between it and the top of A. The

same screws which hold *g* to A are made also to hold gages *i. i.* by which the depth of cut in the leather can be regulated. By the movable rollers *j. j.* the various widths of leather are held up to the cut. These rollers are held in place by thumb screws as at *k*.

On the under side of the flat plate *g*, a projection *m* is cast fast; to this projection a stud pin *n* is secured, on which stud pin the main feed wheel C revolves.

A wheel *o*, on the shaft *p* is moved by the screw *a*. In the end *r* of the shaft *p* is a square socket to receive the square end of the pinion D. The pinion D works in the inside gearing in the main feed wheel C as shown in Fig. 5.

Over the main feed wheel C is placed a small feed roller *s* turning on a pin on the end of the lever piece *t*. The lever piece is held on the flat plate *g* by the screw *u*. Under the head of the screw *u*, between it and the lever plate *t* is placed the spiral spring *w* which as the lever piece *t* is loose on the screw *u* allows the roller *s* to accommodate itself to various thicknesses of leather as they pass between it and C. The screw *u* forms the fulcrum of the lever, the lever pressure being increased or decreased on the feed rollers by turning the screw *v* at the end of the lever *t*.

When the edge plane is used to trim the edges of shoes, the flat plate and its attachments are removed and the pinion D is withdrawn from the socket *r* in the end of the shaft *p*. A cutter head of a suitable form is screwed on to top of the shaft on which the screw *a* and pinion *b* are fastened, but which cannot be seen in the drawing.

In Fig. 2 the cutter head B is of a different form from the head B in Fig. 1. The lower edge of the head in Fig. 2 projects and is intended to act as a guard and a guide in trimming the edge of a sole, by turning the shoe uppers downward and letting the projection on the cutter head go in the crease between the uppers and sole, the sole can be trimmed with ease and speed without any possibility of cutting the upper leather.

Any desired number of cutters can be placed in the heads, each being held in place by a screw as at *x*, and any shape can be given to the cutters.

I do not claim any of the parts separately.

What I claim and desire to secure is—

The bevel wheel *e*, pinion *b*, worm *a*, wheel
o, socket shaft *p*, pinion D, feed wheel C, cut-
5 ter heads B, gages *i*, rollers J, lever piece *t*
and Corliss head Fig. 3, constructed com-
bined and arranged substantially as herein

above set forth, and for the purposes herein
above specified.

H. SAUERBIER.

Witnesses:

W. M. GOODING,
THOS. WADAMS.