

(No Model.)

C. W. CRANE.
SLOTING SHEARS.

No. 287,249.

Patented Oct. 23, 1883.

Fig. 1

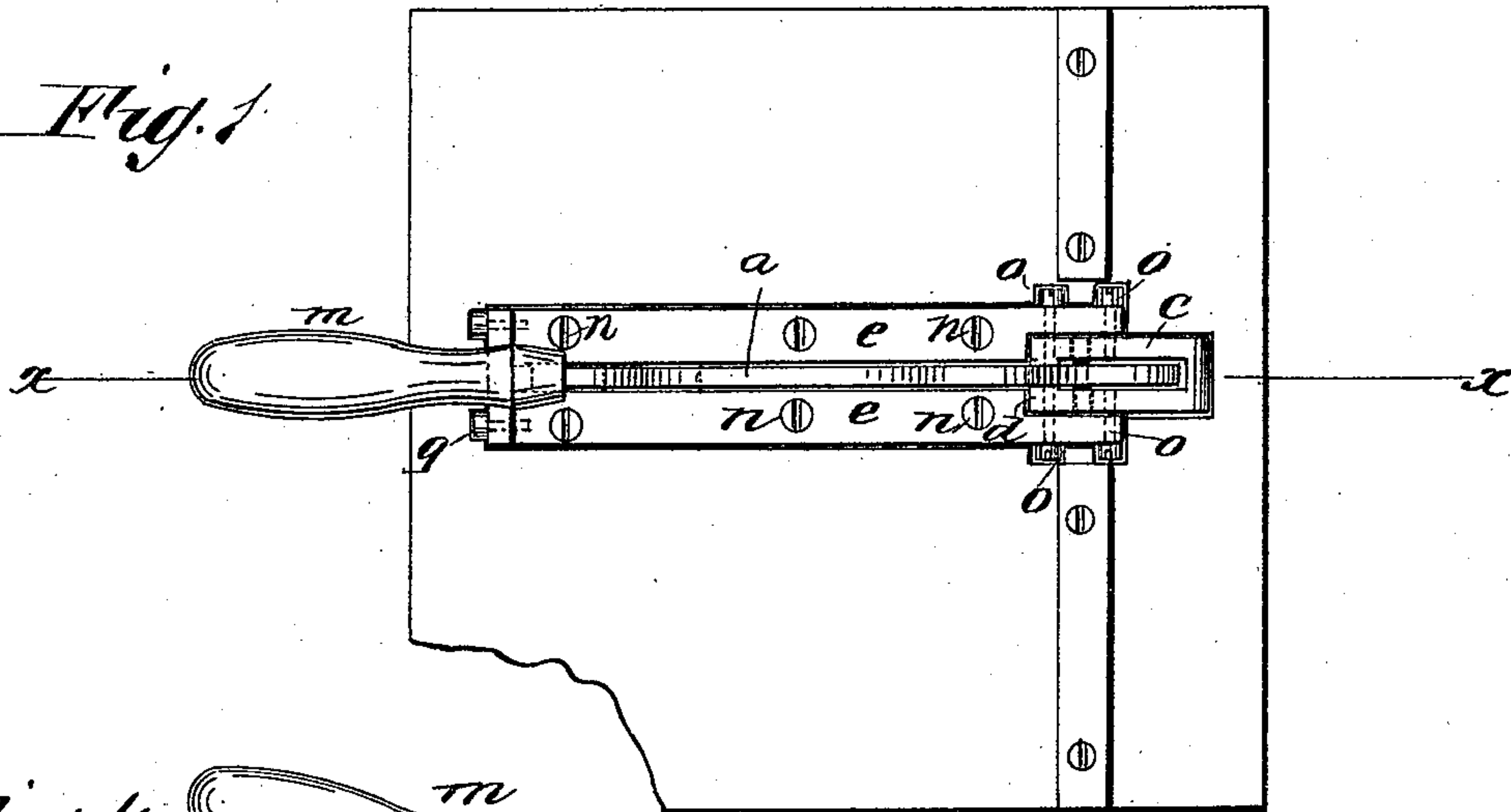


Fig. 4

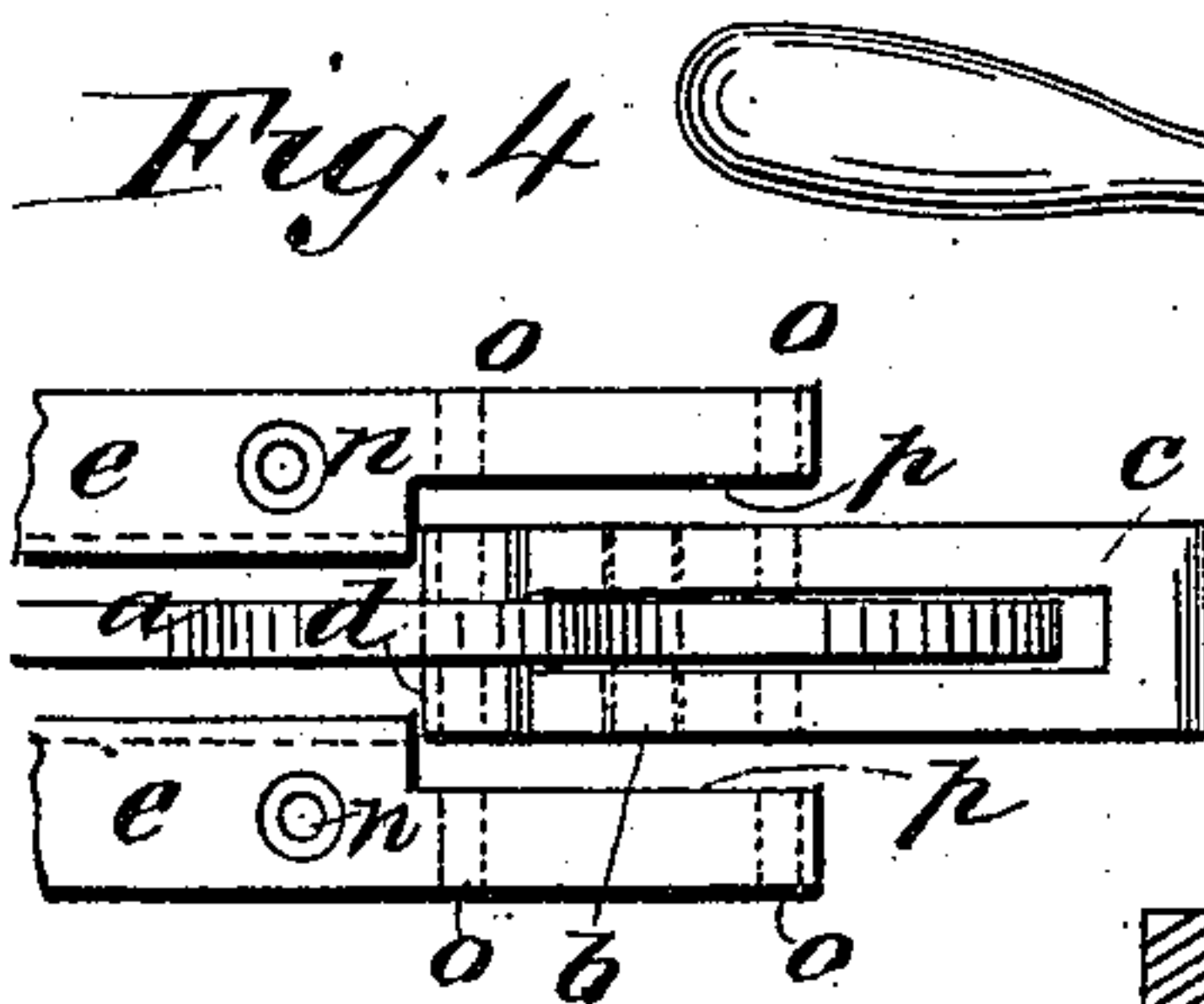


Fig. 2.

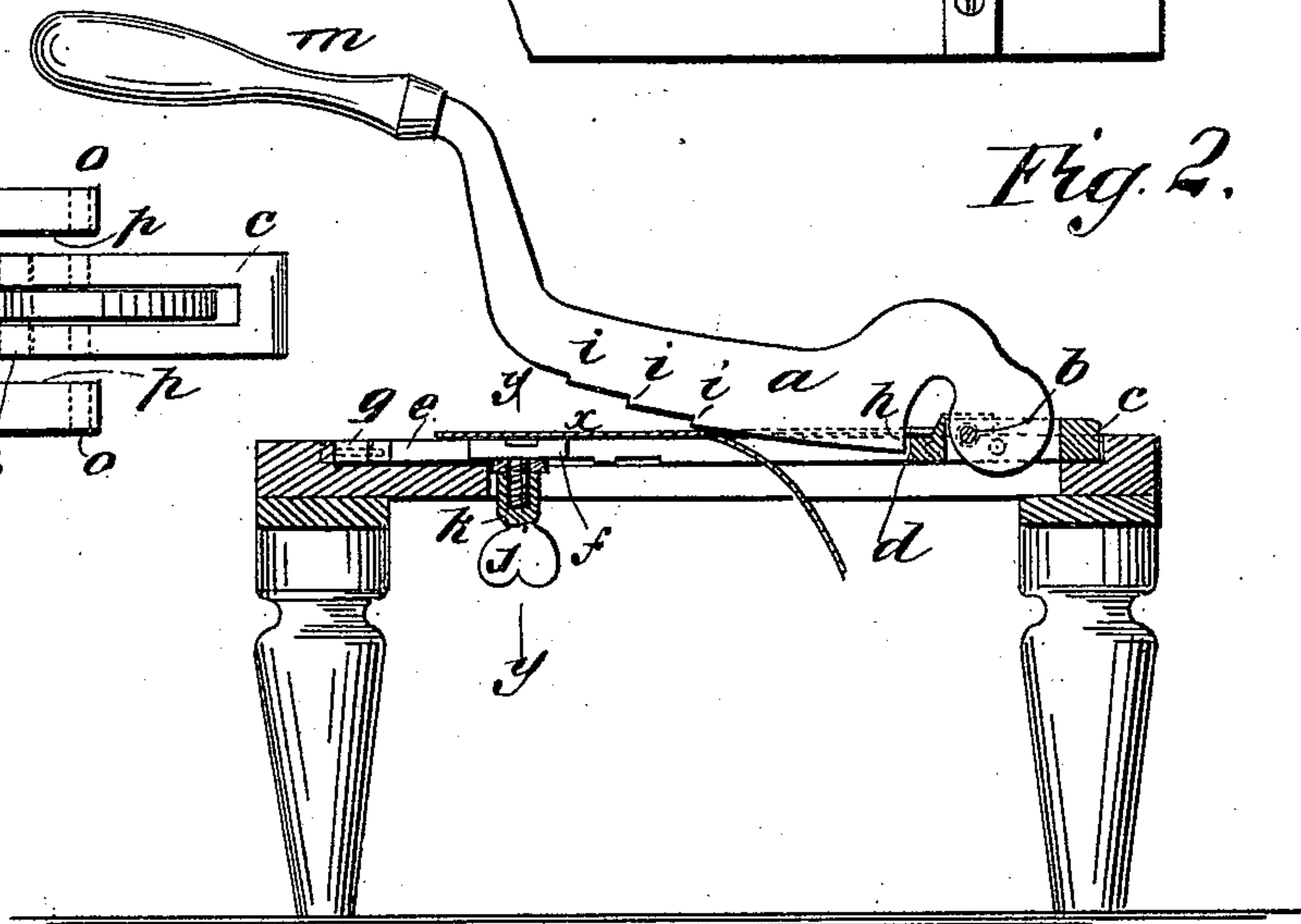


Fig. 3

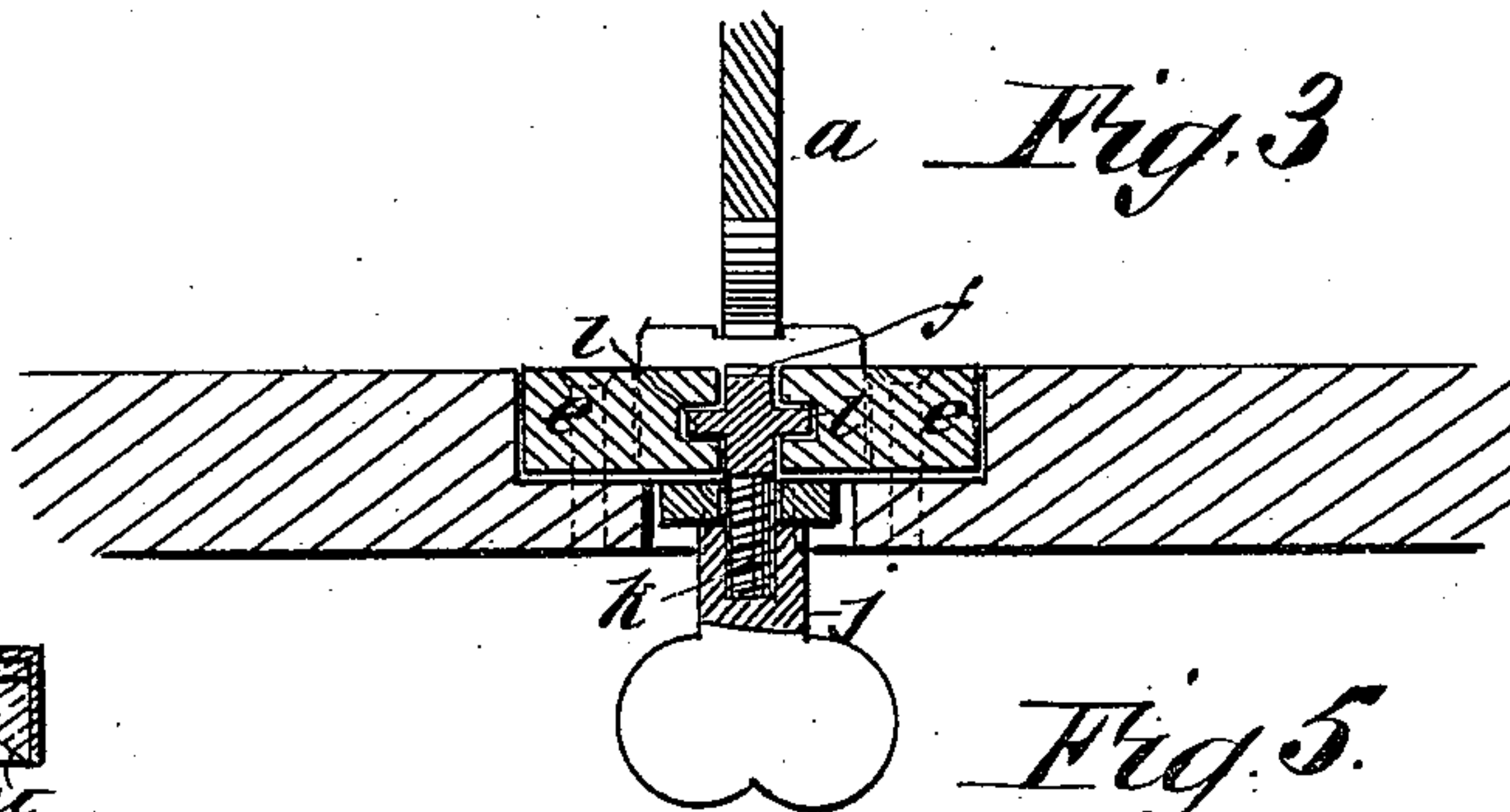


Fig. 6

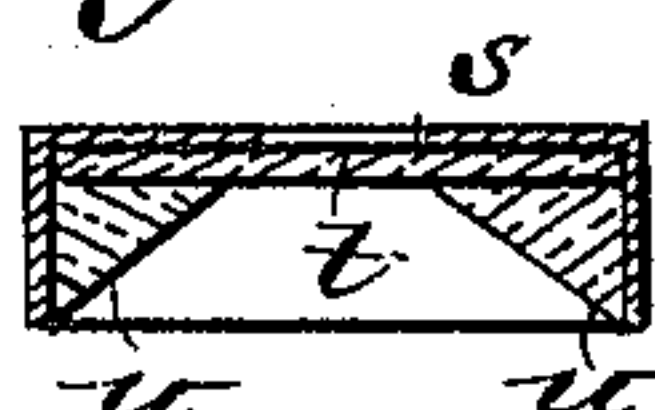
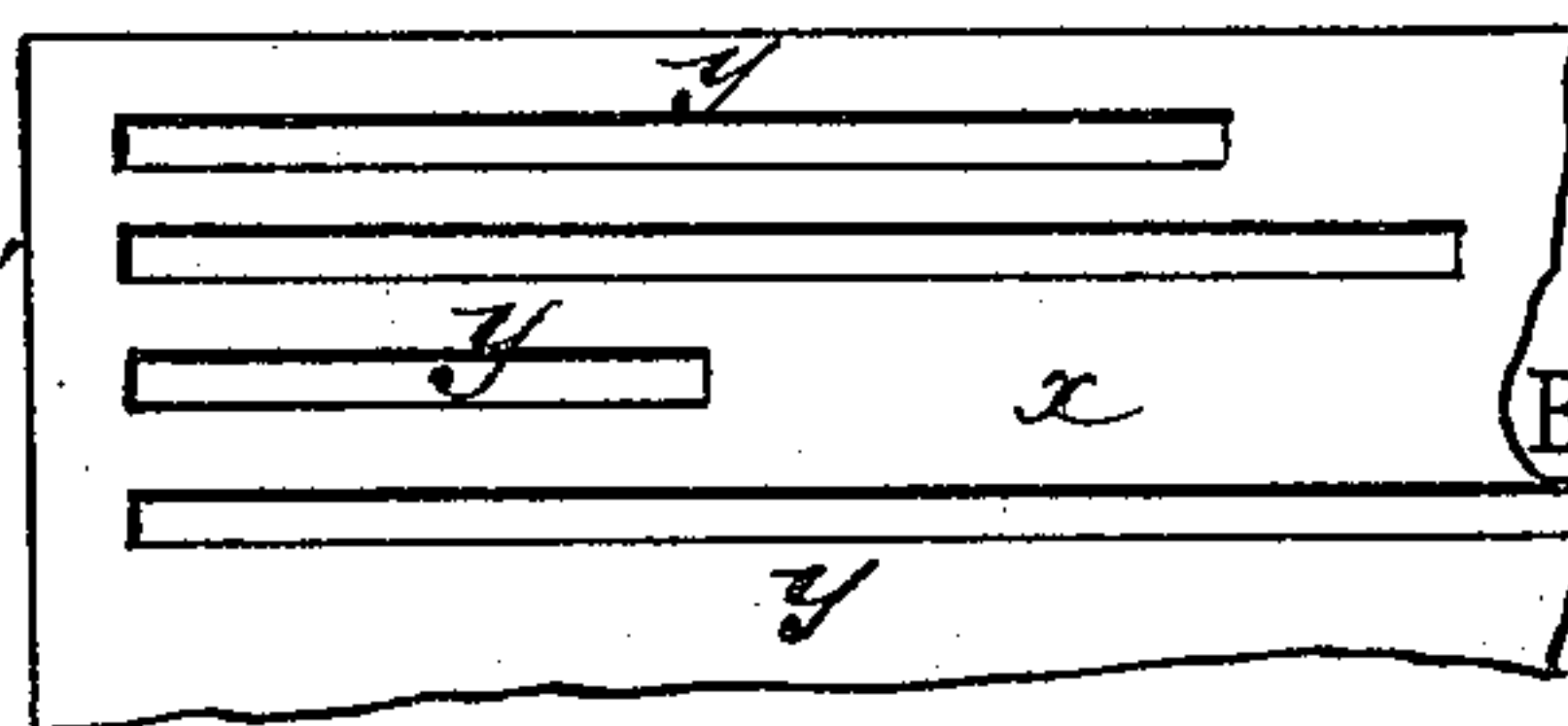


Fig. 5.

WITNESSES:

Francis McArthur,
C. Sedgwick



INVENTOR:

C. W. Crane

BY

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES W. CRANE, OF BATAVIA, IOWA.

SLOTting-SHEARS.

SPECIFICATION forming part of Letters Patent No. 287,249, dated October 23, 1883.

Application filed June 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. CRANE, of Batavia, in the county of Jefferson and State of Iowa, have invented a new and Improved Slotting-Shears of which the following is a full, clear, and exact description.

My invention consists of an improved contrivance of shears to cut slots in sheet-tin for any purpose, and particularly for making the slotted tin strips used in the making of glass gages for cream-cans, to show the quantity of cream contained in the can through the side of the can, the said improved contrivance consisting of a movable shear-blade fitted to a stationary slotted die-plate, the blade having a point near its pivot that thrusts through the tin at the end of the die-plate, and also having ledges along its cutting-edge with which a movable bit in the die-plate may be set to cut long or short slots, according as said bit is set to the different ledges of the shear-blade, making a very simple contrivance, whereby said slots may be cut much faster and better and with less labor than by the common means of first marking out the slots with a pattern and then cutting them out with a chisel, according to the present practice, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved slotting-shears. Fig. 2 is a sectional elevation taken on the line *x x* of Fig. 1. Fig. 3 is a cross-section on the line *y y*, Fig. 2. Fig. 4 is a detail in plan view on an enlarged scale. Fig. 5 is a plan view of a sheet of tin with slots of different lengths, such as may be cut by my improved slotting-shears; and Fig. 6 is a transverse section of a glass gage for a cream-can, such as these slotted strips are to be used for.

The shear-blade *a* is pivoted at *b* in a short slotted steel plate, *c*, the front end, *d*, of which forms the end of a slotted die of which the plates *e* form the sides, and the shifting-bit *f* forms the other end of the said slot. The shear-blade has a point at *h*, that is to punch through the tin *x*, to form one end of the slot *y*, the sides of which are cut by the side edges of the shears, as shown in Fig. 2, the same to be extended until one of the series of ledges *i* closes down in front of the end of the bit *f*, which is movable along the slot between plates

e, to be set for any ledge *i*, where it is to be secured by the clamp-nut *j* and screw *k*. Said bit *f* has ribs or tongues *l*, that run in grooves on the sides of the plates *e* of the die. Thus it will be seen that I can cut slots of different lengths by a single stroke of the shear-blade for each slot, the blade having a lever-handle, *m*, for applying the necessary power.

In case it is required to make wider slots than the thickness of the blades, the sheet of tin may be shifted sidewise, to cut one or more strips in addition to the first.

In order to be able to sharpen the edges of the die-plates from time to time and to reset them closely to the shear-plate, the side plates, *e*, are made separately from each other and bolted down to the table at *n*, and also bolted to the plate *c*, so that slack may be taken up by dressing off the edges *p* and making slotted holes for the bolts *n*. The front ends of the die-plates may have a cross-bar, *q*, bolted on, which may also have slotted holes for its bolts to take up the slack.

Fig. 6 represents the slotted strips *s*, such as the shears are designed for making; *t*, the glass plate, and *u* cement by which the glass is secured to the strips. The die-plate may be made solid at the ends, if preferred. Slots may be made of greater length than the length of the blade *a* from point *h* to ledges *i* by shifting the sheet along and cutting two or more strokes. The ledges are arranged for special lengths of slots, and to cut the ends of slots of any length.

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

1. The combination of a shear-blade, *a*, having a point, *h*, and two or more ledges, *i*, and a die-plate having a movable bit, *f*, substantially as described.

2. The combination of a shear-blade, *a*, having a point, *h*, a slotted plate, *c*, having a cutting-edge, *d*, side plates, *e*, and a bit, *f*, said plate *c*, side plate, *e*, and bit *f* forming a bed-die to the shear-blade, substantially as described.

3. The side plates, *e*, bolted to the table and also to plate *c*, and having a bar, *q*, connecting them at one end, in combination with the shear-plate *a*, substantially as described.

CHARLES W. CRANE.

Witnesses:

A. H. McELROY,
H. F. SUTTON.