

(No Model.)

2 Sheets—Sheet 1.

S. AULT.

BOOK BINDER'S PALLET.

No. 324,289.

Patented Aug. 11, 1885.

Fig. 1

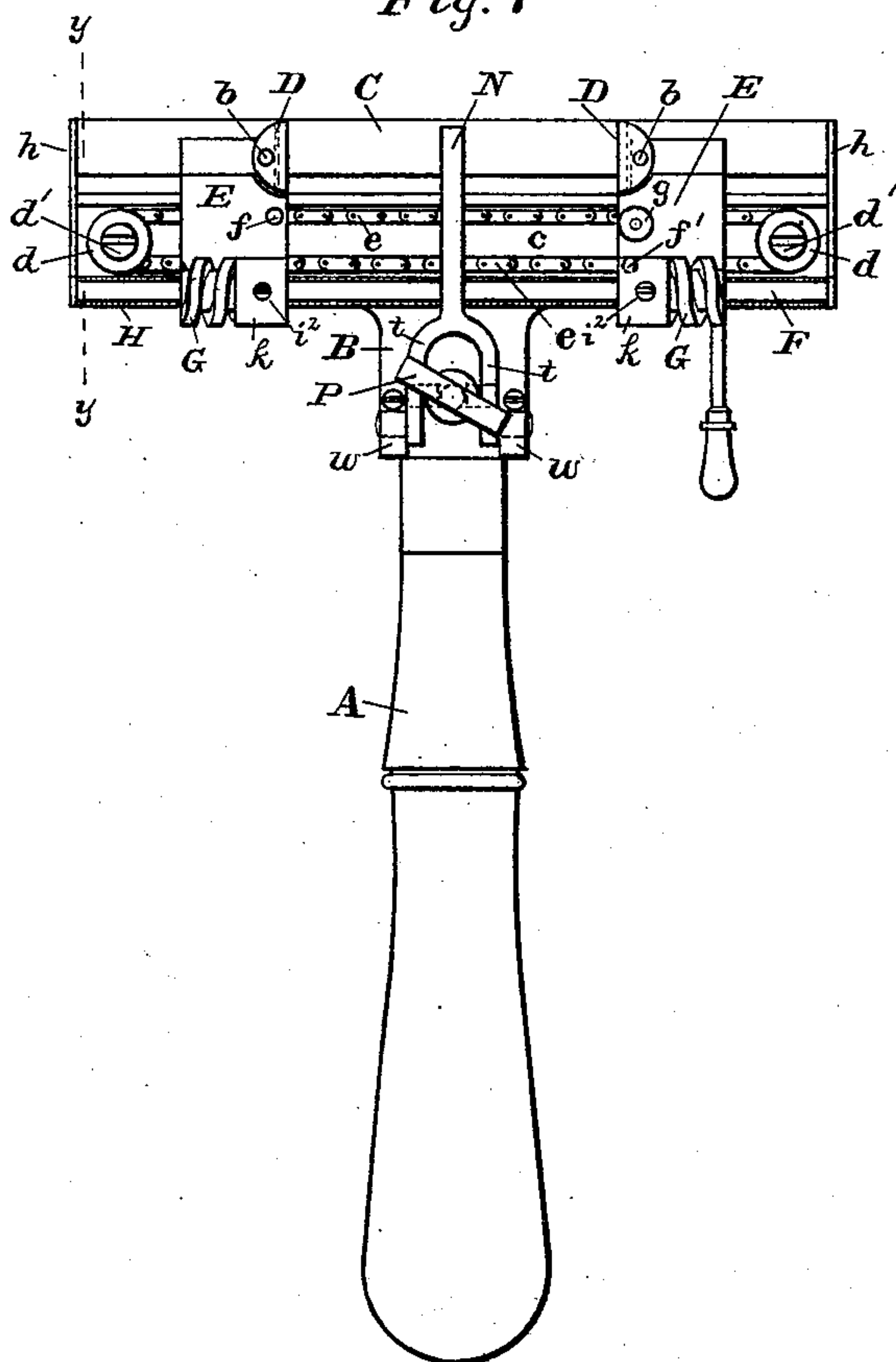
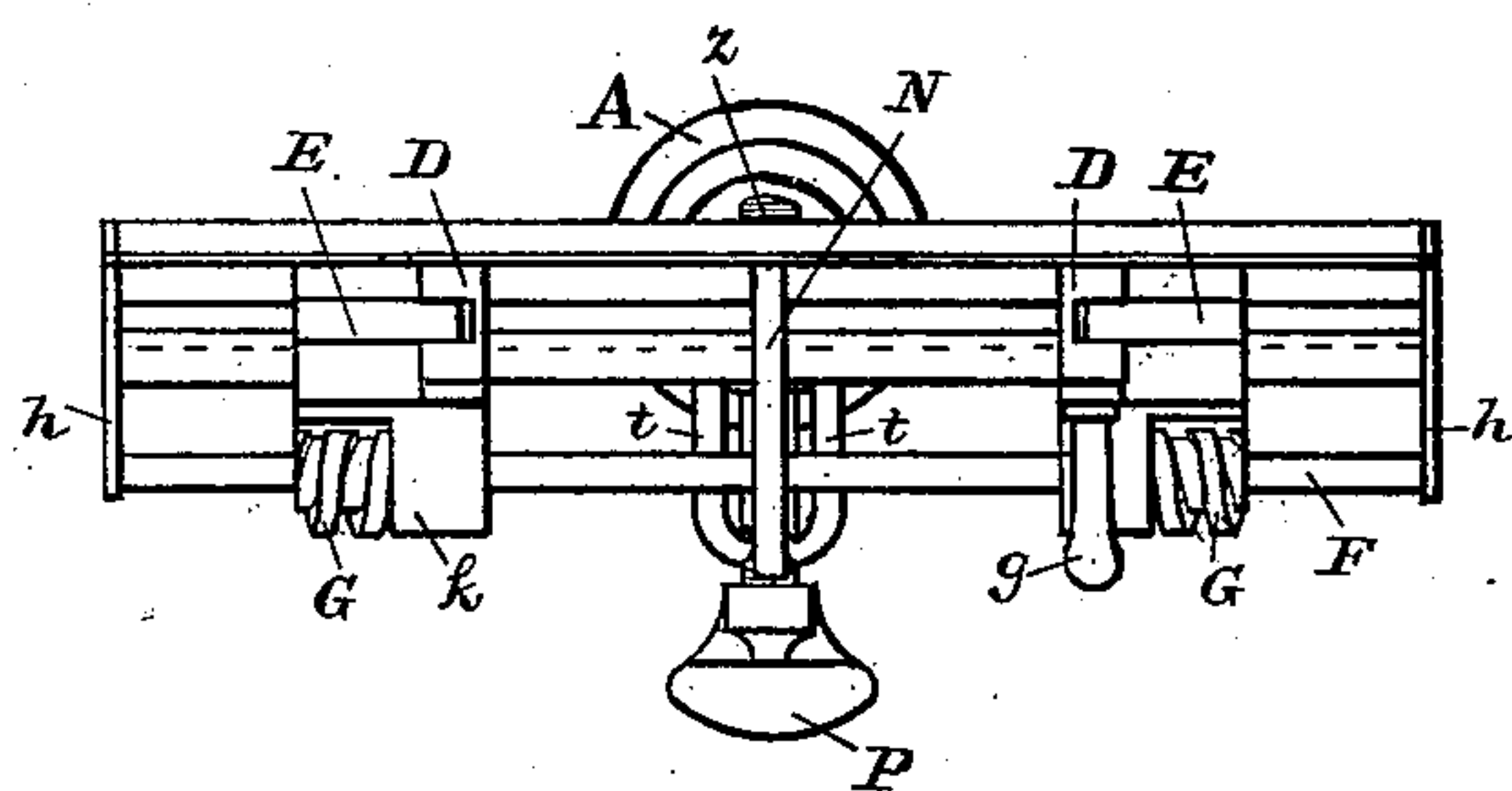


Fig. 2



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INVENTOR

Samuel Ault

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Fig. 3

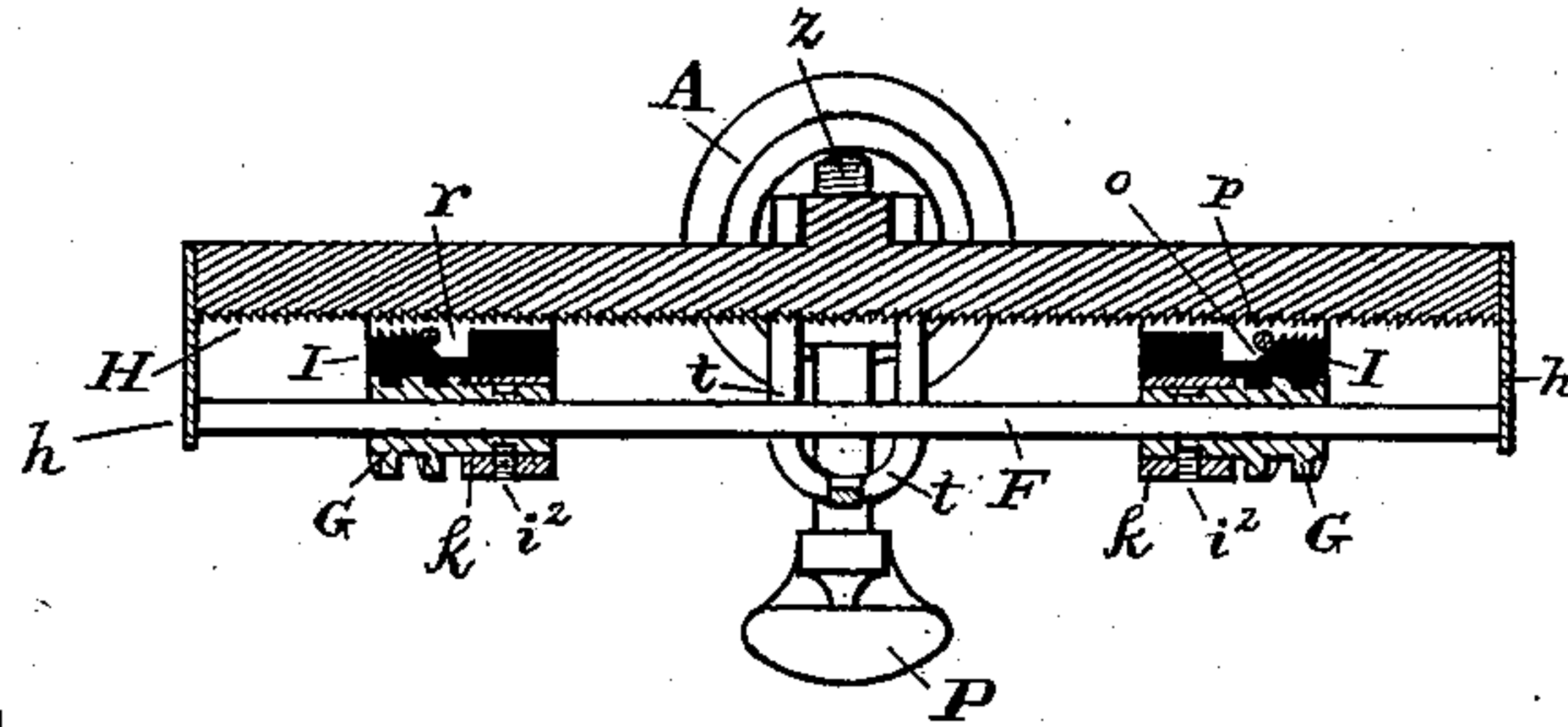


Fig. 10

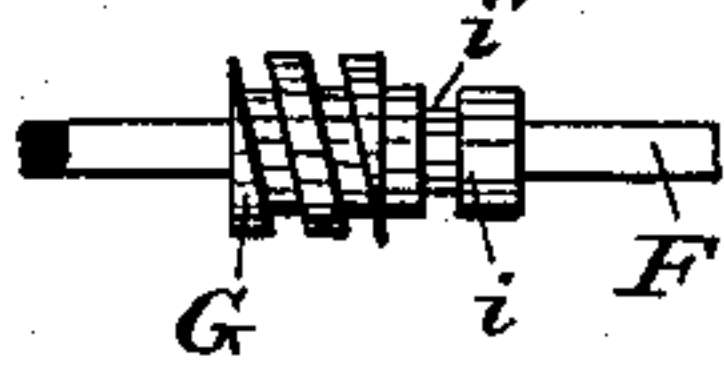


Fig. 11

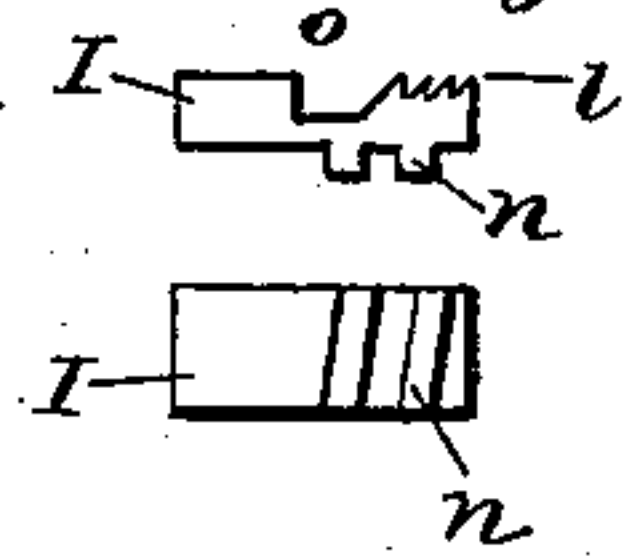


Fig. 4

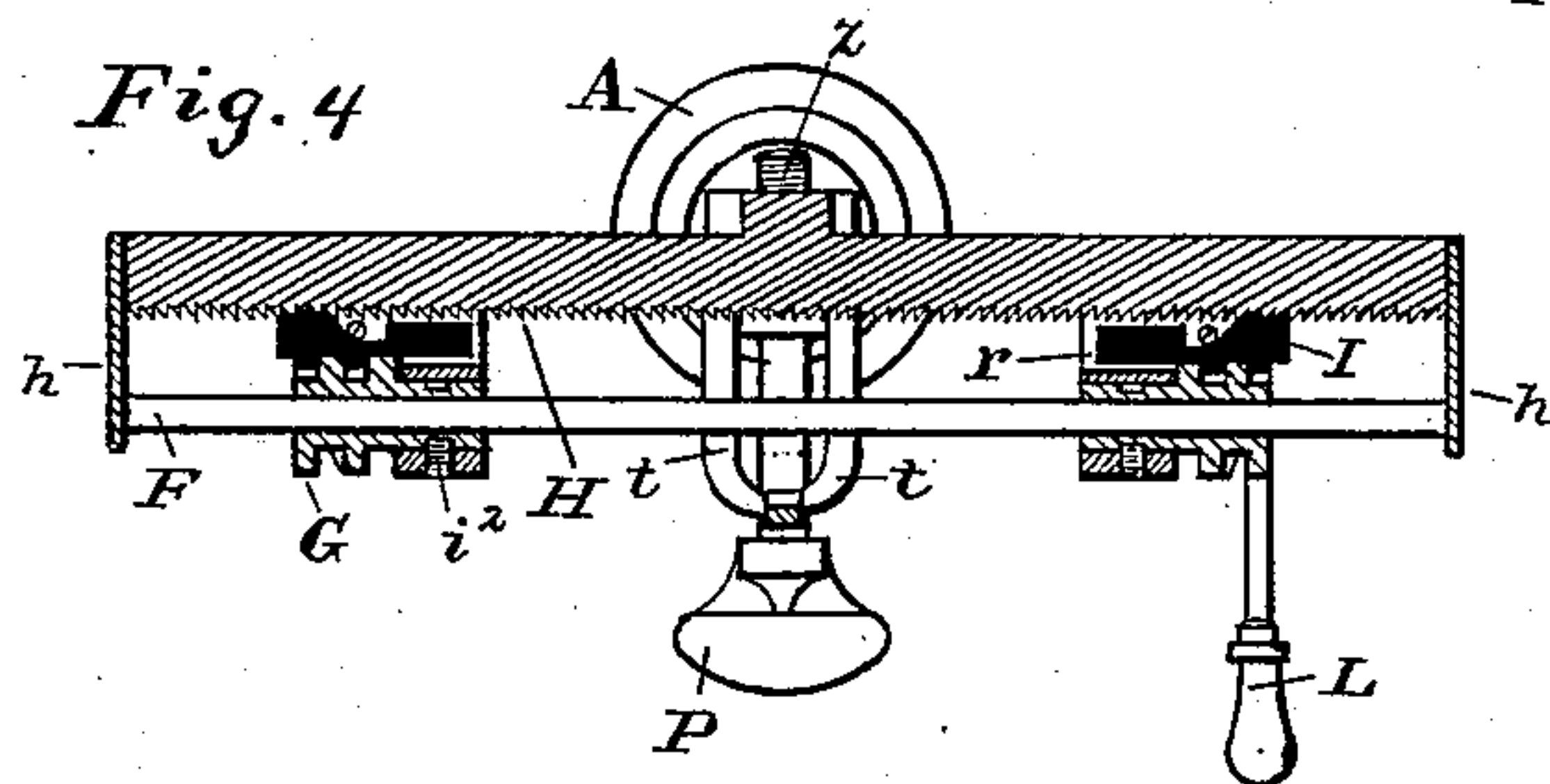


Fig. 5

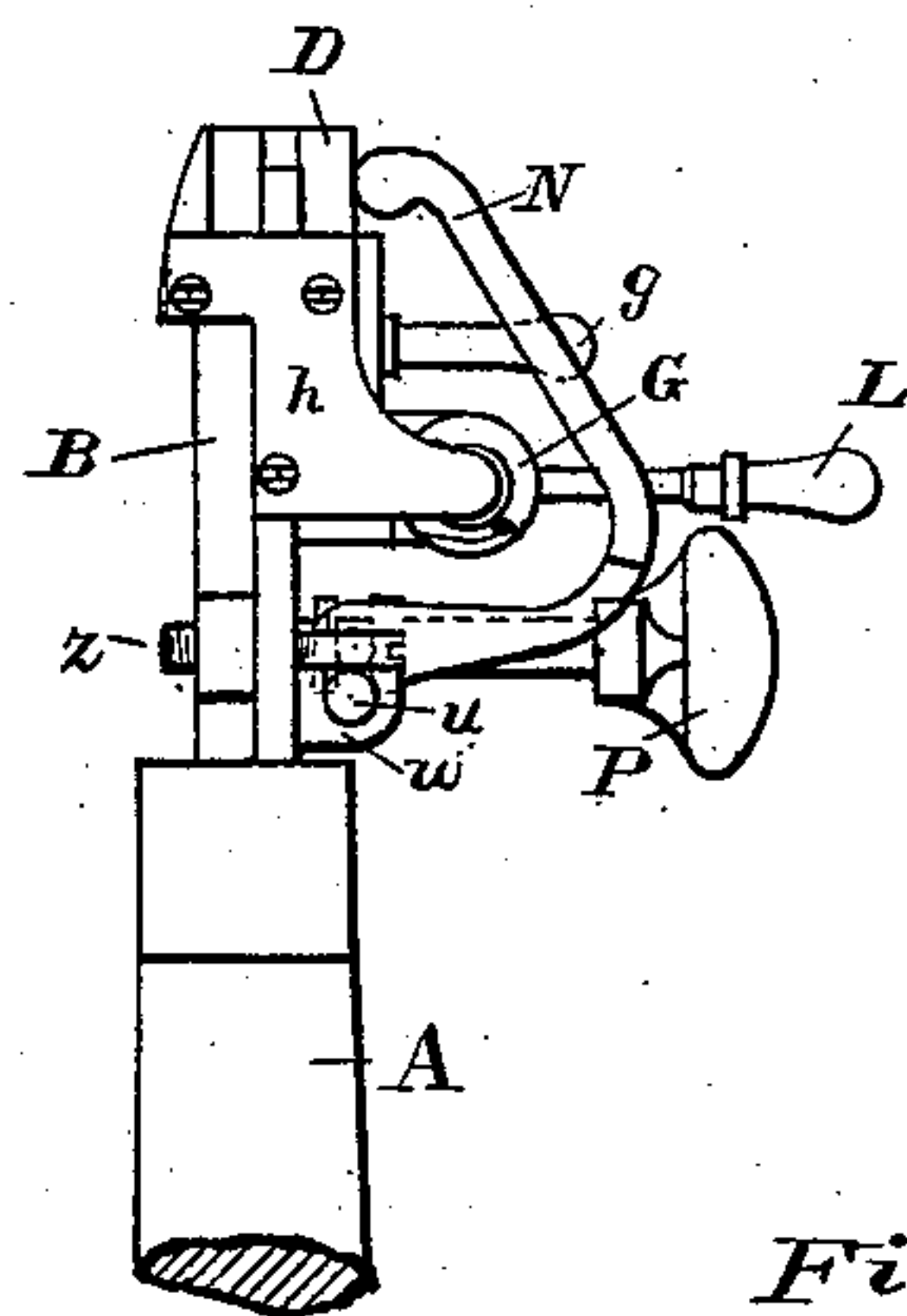


Fig. 6

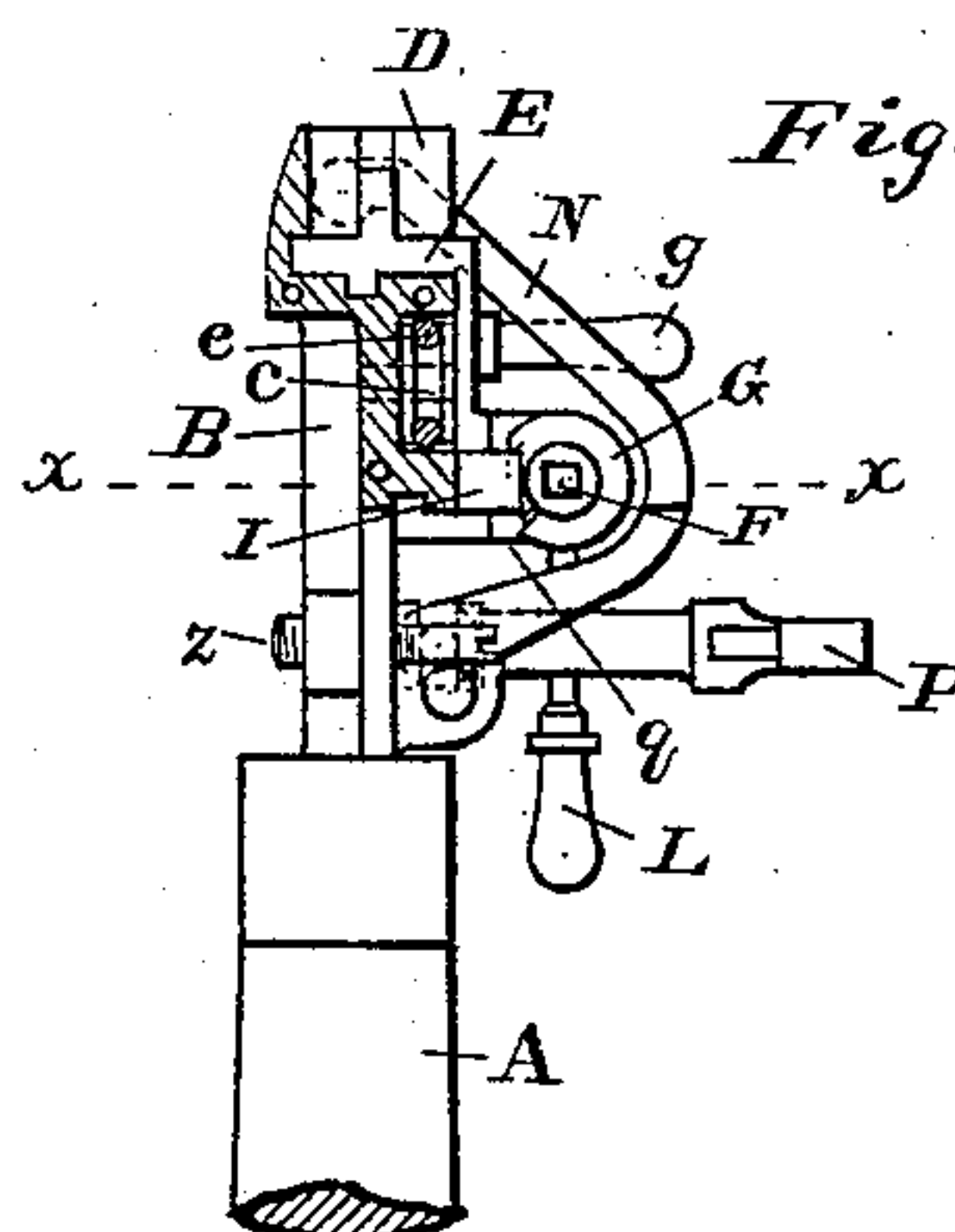


Fig. 8

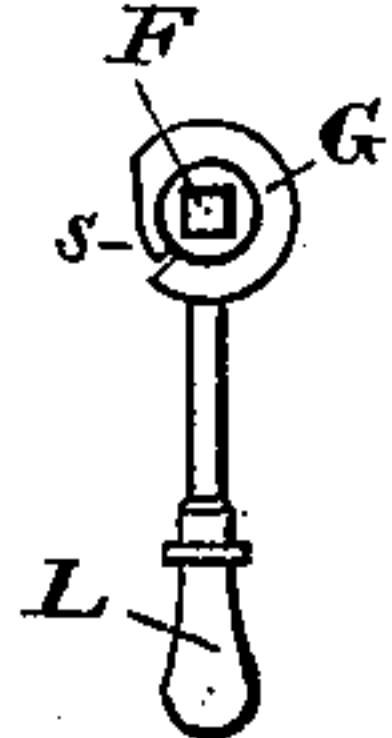


Fig. 7

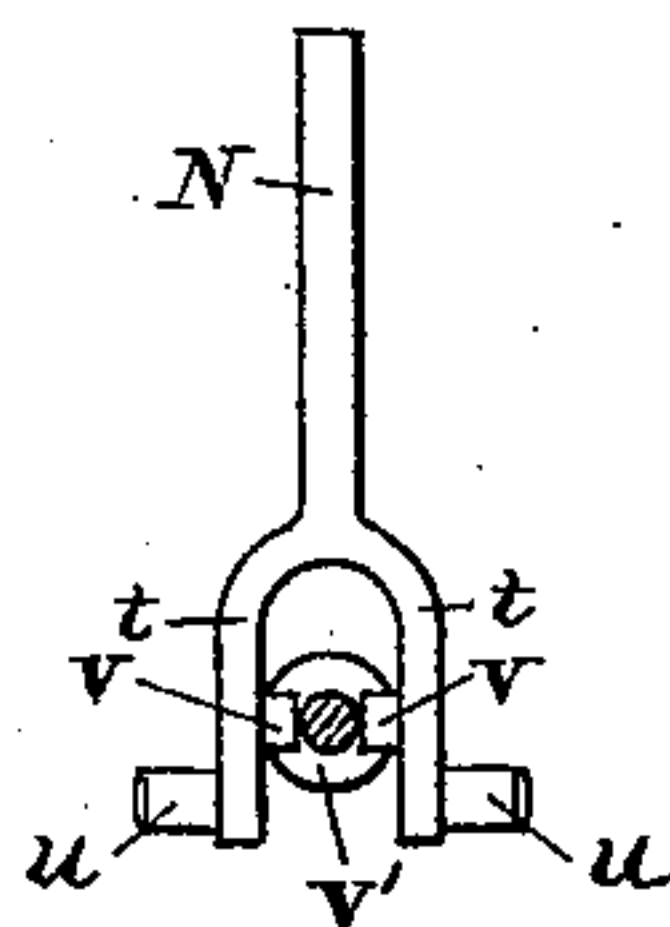
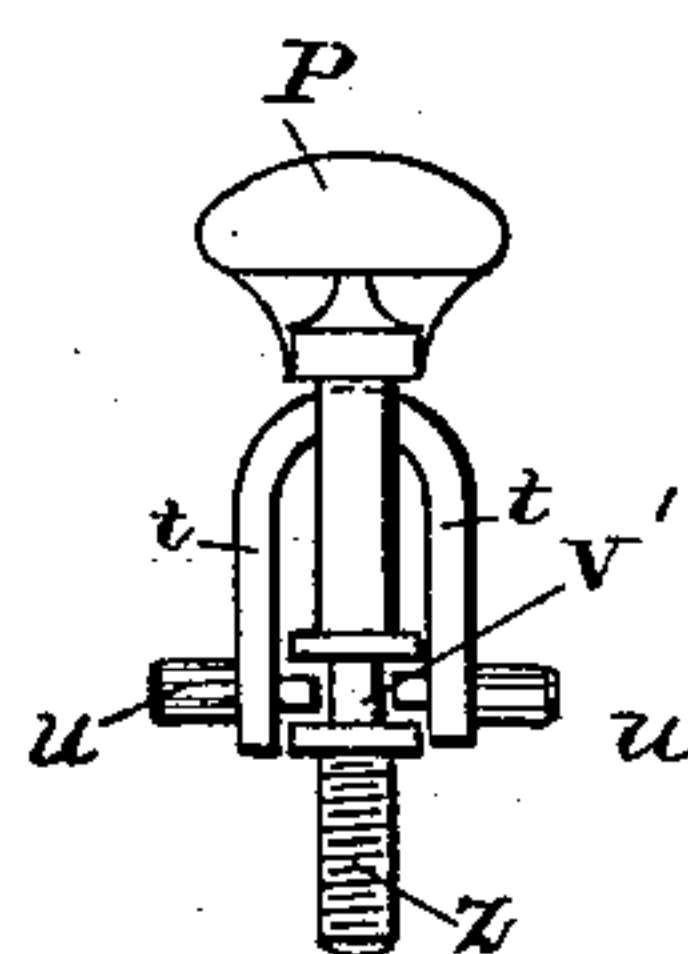


Fig. 9



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UNITED STATES PATENT OFFICE.

SAMUEL AULT, OF BALTIMORE, MARYLAND.

BOOKBINDER'S PALLET.

SPECIFICATION forming part of Letters Patent No. 324,289, dated August 11, 1885.

Application filed June 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL AULT, a citizen of the United States, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Bookbinders' Pallets, of which the following is a specification.

My invention relates to an improved pallet for bookbinders' use. This is a tool employed for holding the type used for imprinting letters in gold on the backs of books.

The invention consists of novel parts, combinations of parts, and features of construction, as hereinafter described and claimed.

The invention is illustrated in the accompanying drawings, in which Figure 1 is a top view of the pallet. Fig. 2 is an end view of same. Fig. 3 is a section on the line *xx* of Fig. 6, showing the dog released from the ratchet-bar. Fig. 4 is a section showing the dog in engagement with the ratchet-bar. Fig. 5 is a side view of the tool. Fig. 6 is a side view, partly in section, on line *yy*, Fig. 1. Figs. 7, 8, and 9 show some of the parts separate. Figs. 10 and 11 show the spiral cam and dog.

The letter A designates the handle; B, the metal head, which is subjected to heat in order to heat the type; C, the type-bed. The two type-clamping jaws D are pivoted at their back, as seen at *b*, which adapts them to set squarely against the type. The jaws are pivoted to and carried by the reciprocating pieces E, which are secured on top of the head, and are adapted to move lengthwise of the type-bed. A groove or recess, *c*, extends lengthwise on top of the head, and at each end is a pulley, *d*, held by a screw, *d'*. A chain, *e*, occupies the groove or recess and passes about both pulleys, and one side connects at *f* with one reciprocating piece, and the other side connects at *f'* with the other. This comprises the means for moving the jaws. When the type-jaws are moved toward or away from each other, the chain travels part way around the two pulleys. Such movement is effected by simply pushing on the stud *g*, attached to one of the pieces E.

The device for tightening the jaws, so as to hold them in a fixed position for clamping the type, consists of a square rock-shaft, F, which

is kept in position by a bearing-plate, *h*, at each end of the head. Loosely mounted on the shaft are two spiral cams, G, one right and the other left. These may slide along the shaft. Each cam has a round wrist, *i*, provided with a groove, *i'*, turned around it. Each wrist occupies a socket or eye, *k*, integral with the reciprocating piece E, and said wrist may turn freely in the socket or eye, and the latter has a screw, *i''*, passed through one side, with its end projecting into the groove *i'* on the wrist. The screw and groove keep the spiral cam G and reciprocating piece E connected together on the rock-shaft. Both may slide along the shaft, while the shaft or spiral cam may turn in the socket or eye. A ratchet-bar, H, extends lengthwise of the head below the rock-shaft. All the teeth on the bar are pitched toward the center—that is, those at one end pitch toward the right hand, and those at the other end pitch toward the left hand. A dog, I, is carried in a recess, *r*, on each reciprocating piece, and engages with the ratchet-bar, while the spiral cam acts on the dog and moves it endwise to engage and disengage it. The dog is seen separately in Fig. 11. The teeth *l* on one side engage with the ratchet-bar, and the two oblique lugs *n* on the opposite side engage with the spiral cam. The inclined face *o* slides on a pin, *p*, projecting through the wall *q* of the recess *r* below the socket or eye. When the dog is moved endwise one way, the teeth *l* engage with the ratchet-bar, and thereby the type-jaws are held from moving. When the dog is moved the other way, the inclined face *o* is brought against the pin *p*, and as the incline rides up on the pin the dog is drawn away from the ratchet-bar, as seen in Fig. 3, and the teeth *l* are disengaged therefrom, when the type-jaws may be moved. An arm or handle, L, is attached either to one of the spiral cams or to the rock-shaft, and serves to turn the latter. One side of each spiral cam has its spirals cut away, as shown at *s*, which is done to afford more room for the dog when the latter is drawn away from the ratchet-bar. A curved presser-arm, N, is employed to press against the body of the type, which may be between the jaws D, and thereby keep the type from bulging away from the type-bed C.

The presser-arm has two prongs, *t*, each having at its extremity on the outer side a trunnion, *u*, on which the arm pivots. On the inner side of each prong is a lug, *v*. The head
 5 has two ears, *w*, next to the end of the handle, and these afford bearings for the trunnions. An operating-screw, *P*, has its end *z* threaded to enter the head, and is provided with two shoulders having a groove, *v'*, between them. The lugs *v* on the two prongs set
 10 in the groove *v'* on the screw. By turning the screw *P* it enters into or recedes from the head, and its groove *v'* draws down on or raises up on the lugs, thereby causing the free end of
 15 the presser-arm to bear against the type or to lift from it.

I have here shown and described a chain as the means for passing over the pulleys and connecting the two type-clamping jaws; but
 20 instead of an endless chain I may use a thin steel band, plaited wires, or other flexible device that will pass over the pulleys. I therefore mean to embrace in the term "chain" any such equivalent.

25 It will be seen that both of the type-clamping jaws, connected as they are by an endless chain, may be moved back and forth rapidly by simply pushing one jaw. This facilitates setting the jaws to receive the type.

30 Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a lettering-pallet, the combination, with the type-bed, of type-clamping jaws each
 35 pivoted at its back, whereby the jaws are adapted to turn as may be required to set squarely against the type, as set forth.

2. A lettering-pallet having type-clamping jaws and means for moving the jaws, consisting of a pulley at each end of the pallet, and
 40 a chain passing over the pulleys, as set forth.

3. In a lettering-pallet, the combination of type-clamping jaws adapted to move back and forth over the type-bed, a ratchet-bar fixed to
 45 the head and extending lengthwise of the

type-bed, and a dog connected, as described, with each jaw and adapted to engage with the ratchet-bar, as set forth.

4. In a lettering-pallet, the combination of type-clamping jaws adapted to move back and forth over the type-bed, a ratchet-bar fixed
 50 to the head and extending lengthwise of the type-bed, dogs adapted to engage with the ratchet-bar, a piece, *E*, connecting each jaw and one of the dogs, and a spiral cam turning
 55 in a socket or eye integral with the said connecting-piece, and adapted to act on the dog, as set forth.

5. In combination with the type-clamping jaws, a ratchet-bar, *H*, dogs *I*, adapted to engage with the ratchet, a rock-shaft, *F*, a piece,
 60 *E*, connecting each jaw and one dog, and a spiral cam, *G*, attached to each piece, both arranged to slide along the rock-shaft, as set forth.

6. The combination, in a lettering-pallet, of a ratchet-bar, *H*, a dog, *I*, to engage therewith having an inclined face, *o*, a pin, *p*, projecting through the wall of the dog-recess,
 70 and a spiral cam, *G*, having its spiral cut away on one part, as set forth.

7. In a lettering-pallet, the combination, with a type-bed and clamping-jaws, of a presser-arm to bear against the body of the type to keep them from bulging away from the bed,
 75 as set forth.

8. In a lettering-pallet, the combination of a type-bed, a screw having two shoulders with a groove between them, and a pivoted arm having a part which sets in the groove on the
 80 screw, whereby it is operated, and having its free end in position to bear against the type in the bed, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL AULT.

Witnesses:

GEORGE W. SWITZER,
 THOMAS PENNINGTON.