

No. 736,166.

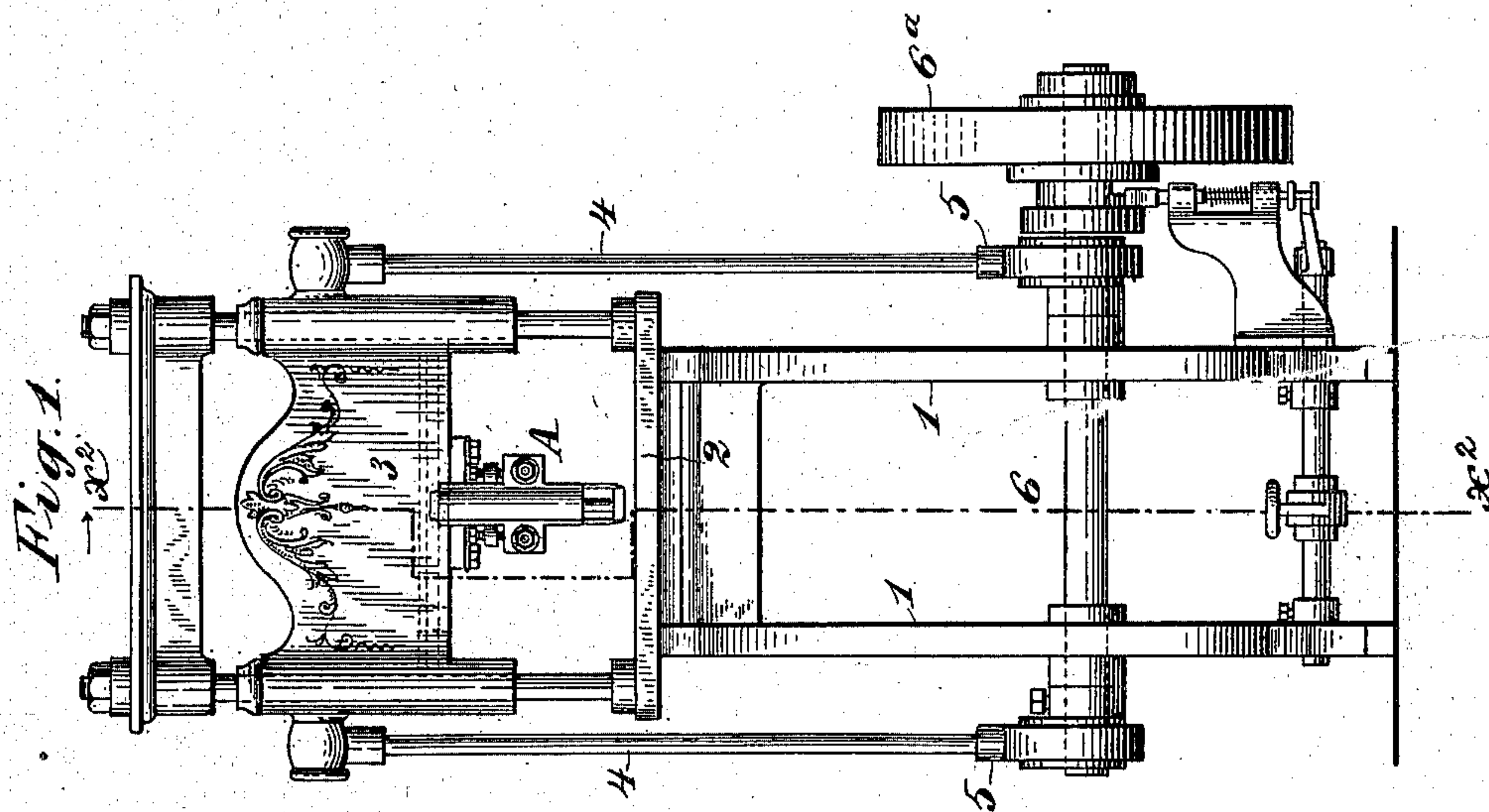
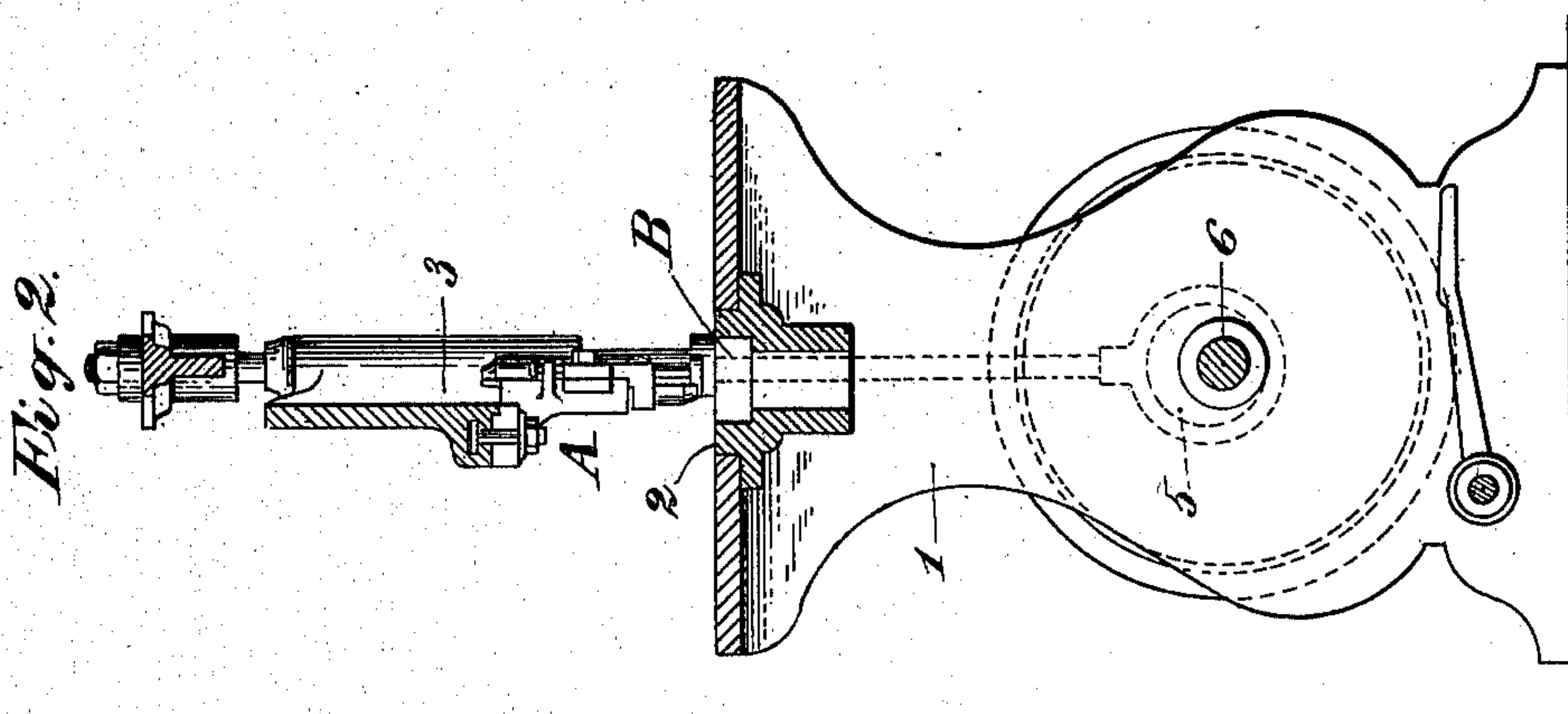
PATENTED AUG. 11, 1903.

E. B. STIMPSON.
MACHINE FOR TRIMMING BOOKS OR THE LIKE.

APPLICATION FILED DEC. 29, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

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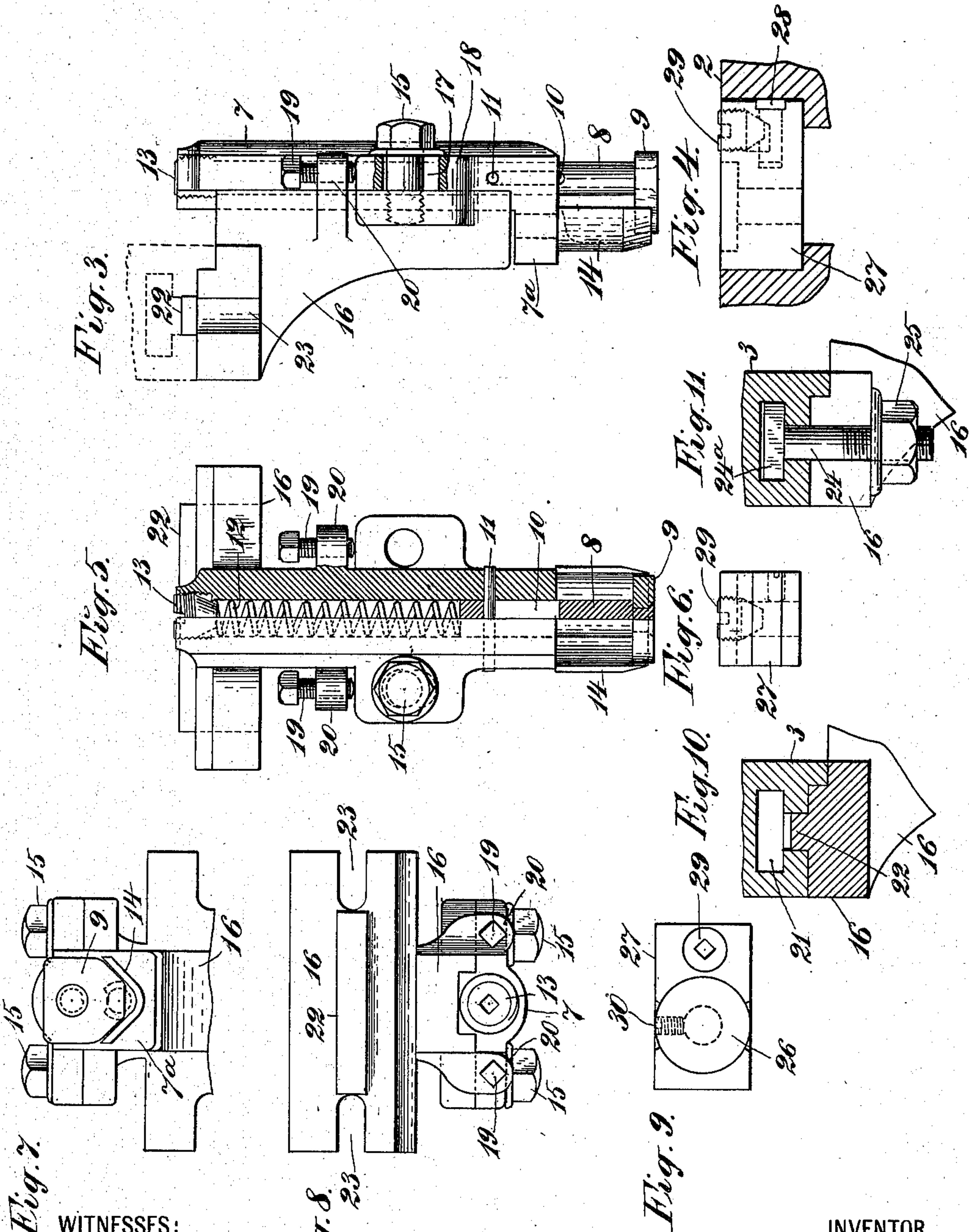
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WITNESSES:

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Fig. 8.

Fig. 9.

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UNITED STATES PATENT OFFICE.

EDWIN BALL STIMPSON, OF NEW YORK, N. Y.

MACHINE FOR TRIMMING BOOKS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 736,166, dated August 11, 1903.

Application filed December 29, 1902. Serial No. 136,940. (No model.)

To all whom it may concern:

Be it known that I, EDWIN BALL STIMPSON, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings and city and State of New York, have invented certain new and useful Improvements in Machines for Trimming Books or the Like, of which the following is a specification.

This invention relates to the class of cutting-machines wherein the cutter reciprocates; and it has for its object to provide a machine for rounding the corners of books, pamphlets, &c.

In the accompanying drawings, which illustrate an embodiment of the invention, Figure 1 is a front elevation, and Fig. 2 a vertical section at line x^2 in Fig. 1, showing the machine as a whole on a small scale. The remaining views show the details of the machine in which the invention resides detached and on a larger scale. Fig. 3 is a side elevation of the holder and bracket, carrying the cutter and presser-foot. Fig. 4 is a side elevation of the cutting-plate and holder. Fig. 5 is a front elevation, partly in section, of the cutting device seen in Fig. 3. Fig. 6 is a front elevation of the cutting plate and holder. Fig. 7 is an under side view of the cutting device seen in Fig. 3, and Fig. 8 is a plan of the same. Fig. 9 is a plan of the cutting-plate and holder. Figs. 10 and 11 are sectional views illustrating the manner of securing the cutting device to the head of the machine.

The machine illustrated in Figs. 1 and 2 is not broadly new and is shown herein mainly as a convenient means for imparting the required reciprocating movement to the cutting device. Hence a brief description thereof will suffice.

1 is the machine-frame, which supports a bed 2. In the frame is mounted slidably a head 3, adapted to be reciprocated by connecting-rods 4 from eccentrics 5 on a rotating shaft 6 in the frame below. On this shaft is a pulley 6^a for driving it.

The cutting device (illustrated in detail in Figs. 3, 5, 7, and 8) is designated as a whole in the general views, Figs. 1 and 2, by the letter A, and the cutting-plate and its holder (illustrated in detail in Figs. 4, 6, and 9) is

designated in the general views as a whole by the letter B.

Referring to the detail views, the "cutting device" (conveniently so called) comprises a holder 7 of tubular form, in which is mounted slidably the stem 8 of the presser-foot 9. This stem has in it a slot 10, which is engaged by a cross-pin 11 in the holder. The presser-foot is backed by a spring 12, which abuts above against a screw-plug 13, which closes the upper end of the bore in the holder. In a laterally-projecting lug 7^a on the holder is set the cutter 14, which is curved, as seen in Fig. 7, to round the corner of a book or pamphlet. Fig. 7 shows also the shape of the presser-foot, the corners of which are removed, so that it may enter the hollow of the cutter and press on the book close to the cutting-point. The holder 7 is secured by screws 15 to the face of a bracket 16, and in order that it may be adjusted up or down on the bracket to a limited extent the shanks of the screws 15 pass through slots 17 in the securing-lugs 18 on the holder, (as seen where a lug is broken away in Fig. 3,) and adjusting-screws 19, bearing on the slotted lugs of the holder, are set in lugs 20 on the bracket 16. By loosening the attaching-screws 15 the screws 19 may be employed to depress the holder, and these adjusting-screws also serve to resist the tendency of the pressure in cutting to force the holder upward.

The bracket 16 of the cutting device is secured to the head 3 of the machine by means best illustrated in the sectional detail views Figs. 10 and 11. In the under side of the head is formed an undercut or T-shaped groove 21, and on the bracket is a rib 22, which slidably engages the outer part of said groove. In the bracket, Fig. 8, are two slots 23, which are engaged by the shanks of securing-bolts 24, Fig. 11, the square heads 24^a of which engage the groove 21, while the nuts 25 on said bolts take under the bracket, as clearly shown. The cutting devices may be adjusted along the head 3 to any point desired.

The cutter 14 cuts on a cutting-plate 26 of relatively soft metal, as brass, set in a holder 27. This device is seen best in Figs. 4, 6, and 9. The block forming the holder 27 (see Fig. 4) sets in a slot formed in the bed 2 of the

machine and is slidable along said slot, being secured in the slot when set by a clamping-plate 28 and conical screw 29. The cutting-plate 26 is circular and is recessed in the block, being provided with a rotative bearing in the latter. It is held in place by a set-screw 30.

The operation of the machine is as follows: It will be understood that the machine shown in Figs. 1 and 2 has a known clutch device, whereby when the operator desires he may cause the head 3 to descend, effect the cutting operation, rise again, and stop. The cutting device A is secured to the head 3 and the cutting-plate and holder B set in the bed 2 and properly adjusted laterally to the cutter. The holder 7, carrying the cutter and presser-foot, is now adjusted so that the cutter will come to a proper bearing on the cutting-plate when the head descends. A book to be trimmed is now placed on the bed of the machine and the latter set in motion. The cutting device descends and the presser-foot, which projects normally beyond the cutter, first comes to a bearing on the book and yielding allows the cutter to come in play and trim the corner of the book.

The cutting-plate may be shifted rotatively from time to time in order to bring a fresh cutting-surface under the cutter.

I have described my invention as it is illustrated in the drawings and as I prefer to construct it; but it will be understood that this construction may be varied to some extent without materially departing from my invention.

Having thus described my invention, I claim—

1. In a machine for the purpose specified, the combination with means for imparting a reciprocating movement to the cutting device, and a cutting-plate, of the said cutting device comprising a bracket, means for securing said bracket to the reciprocating part, a tubular holder mounted adjustably on said bracket, screws above and bearing on said holder for resisting its upward movement, a cutter fixed in said holder, a presser-foot having a slid-

ably-mounted bearing in said holder, the spring behind the presser-foot, and means for adjusting the tension of said spring.

2. In a machine for the purpose specified, the combination with a frame, a reciprocating head in said frame, a bed having in it a groove, and a cutting-plate mounted adjustably in said groove, of a cutting device mounted adjustably on said head, said cutting device comprising a bracket, means for securing said bracket to the said head, a tubular holder mounted adjustably on said bracket, screws for adjusting and preventing the yielding of said holder under pressure, a cutter set in said holder, a presser-foot mounted slidably in said holder, and a spring behind said presser-foot.

3. In a machine for the purpose specified, the cutter device, comprising a bracket 16, the tubular holder 7 mounted slidably on the face of the bracket, the screws 15, securing said holder adjustably to the face of the bracket, the screws 19 in the bracket and bearing on some part of the holder to resist its upward movement, the presser-foot 9, having a stem 8 mounted slidably in the holder, a pin in the holder, engaging a longitudinal slot in the stem of the presser-foot, and a cutter 14, secured in said holder.

4. In a machine for the purpose specified, the combination with the reciprocating head of the machine, the cutting device mounted thereon, and the bed of the machine slotted to receive the holder for the cutting-plate, of the said holder, means for securing it in place in the slot in the bed, and the non-apertured cutting-plate 26, mounted rotatively in said holder, whereby said plate may be adjusted by rotation to present a fresh surface to the cutter.

In witness whereof I have hereunto signed my name, this 26th day of December, 1902, in the presence of two subscribing witnesses.

EDWIN BALL STIMPSON.

Witnesses:

PETER A. ROSS,

WILLIAM J. FIRTH.