

No. 896,855.

PATENTED AUG. 25, 1908.

F. A. PETTIT.  
KNIFE WIPER.

APPLICATION FILED APR. 21, 1908.

Fig. 2

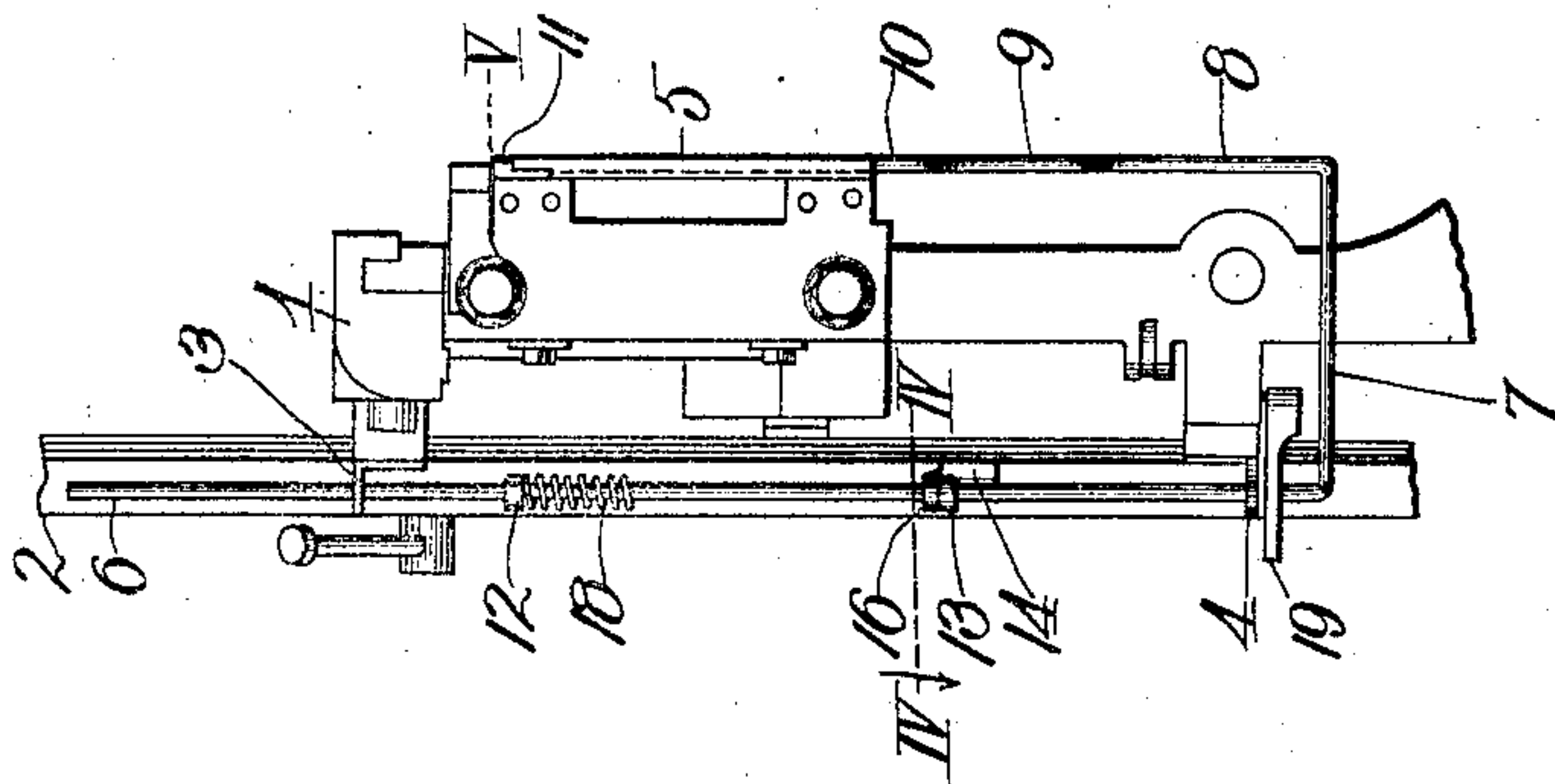


Fig. 1

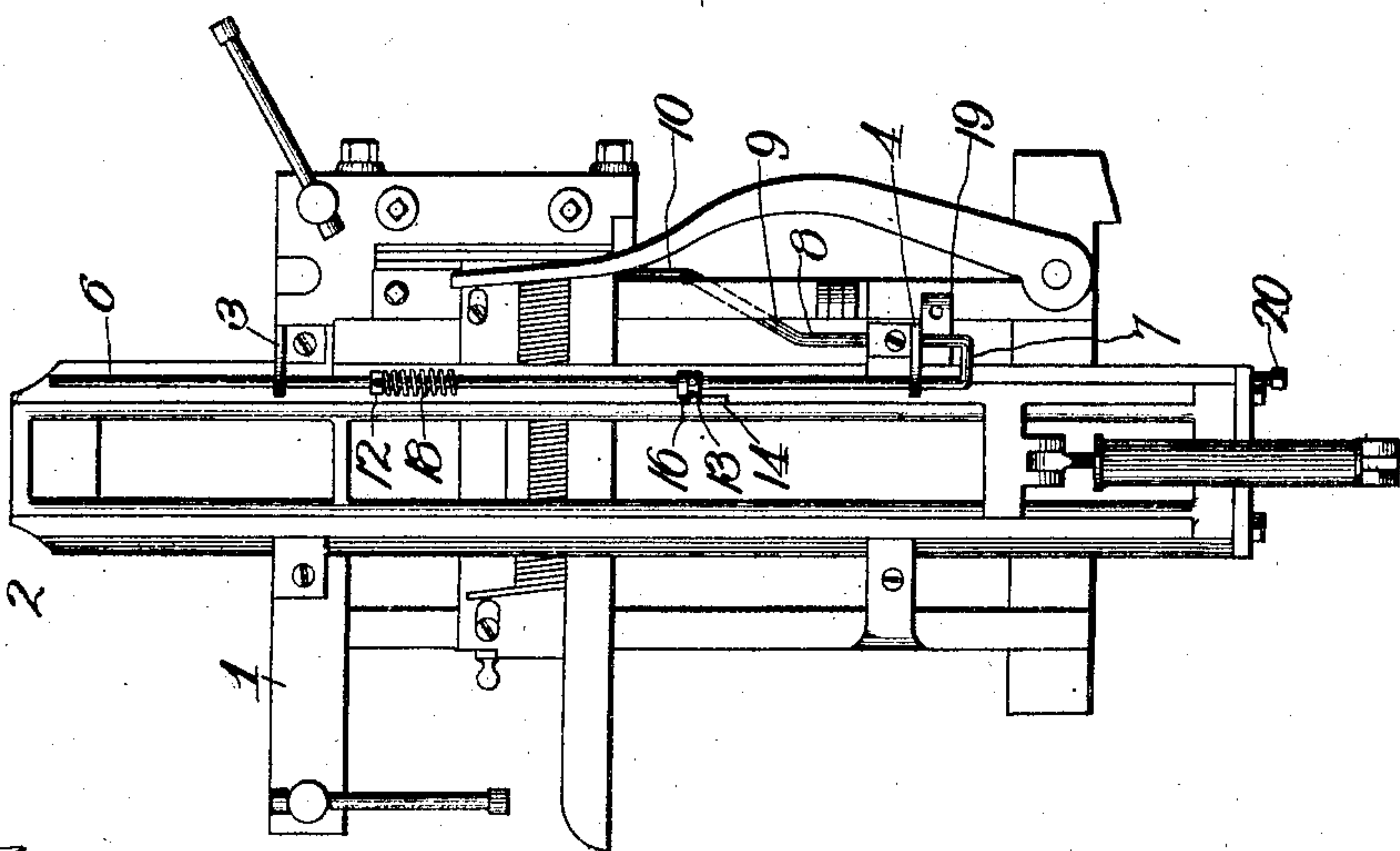


Fig. 3

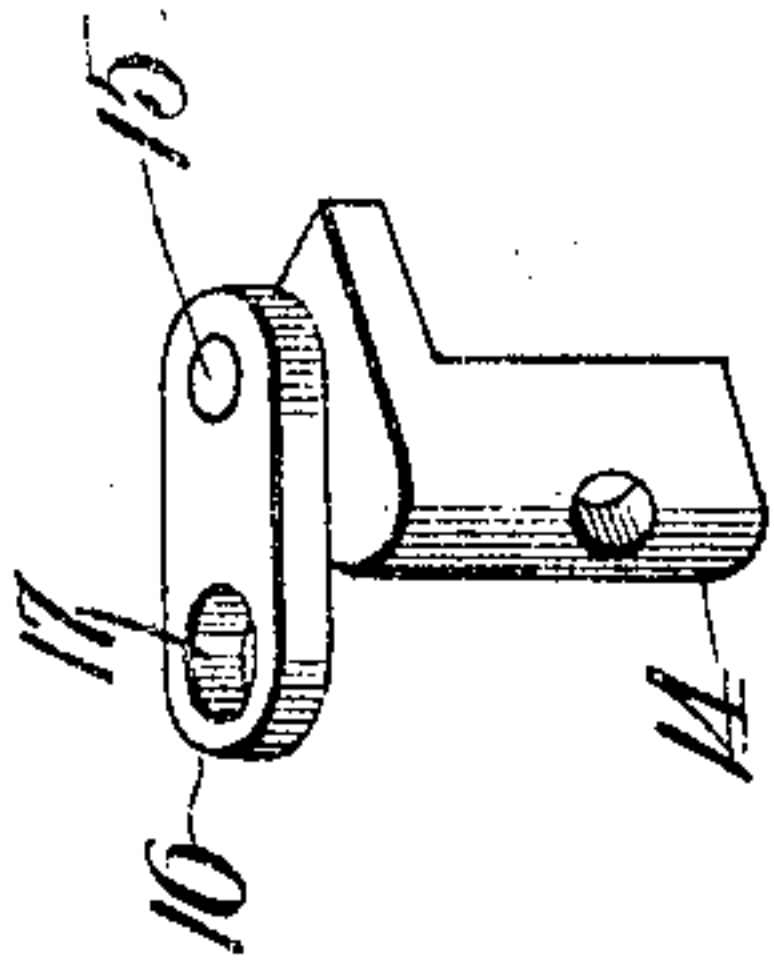


Fig. 5

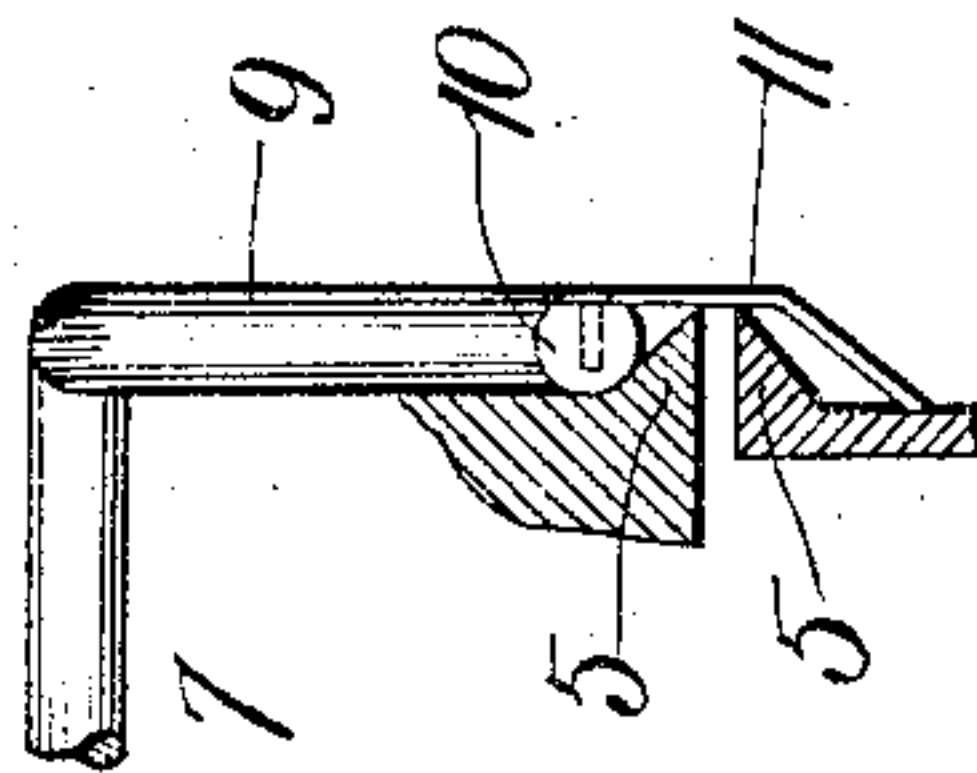
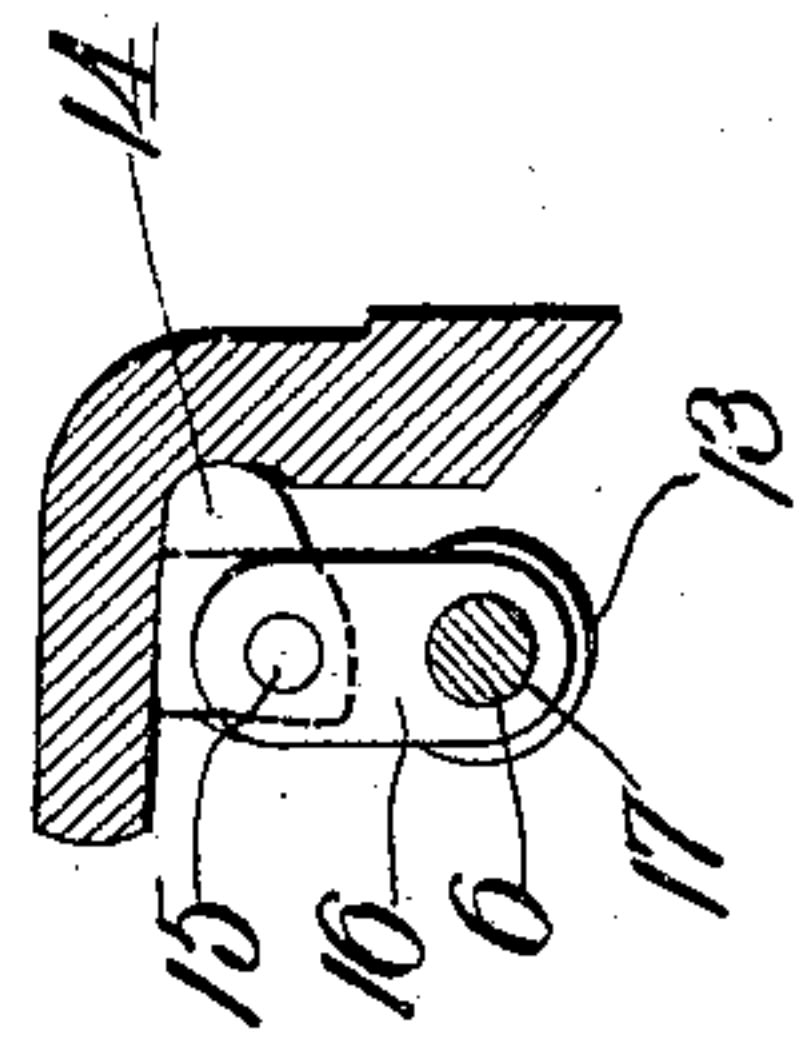


Fig. 4



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK A. PETTIT, OF KANSAS CITY, MISSOURI, ASSIGNOR OF ONE-HALF TO H. P. BERKSHIRE,  
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## KNIFE-WIPER.

No. 896,855.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed April 21, 1908. Serial No. 428,455.

*To all whom it may concern:*

Be it known that I, FRANK A. PETTIT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Knife - Wipers, of which the following is a specification.

This invention relates to knife wipers for linotype machines and is designed more especially as an improvement on the invention disclosed by my patent on knife wiper, #810,079, dated Jan. 16, 1906, my object in this connection being to produce a knife wiper mechanism embodying the features of advantage possessed by the patented one referred to with the added and material advantage of automatically accommodating the varying travel of the first elevator.

To this end the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which—

Figure 1, is a front elevation of a part of a Mergenthaler linotype machine, equipped with a knife wiper embodying my invention. Fig. 2, is a right hand side elevation of the same with certain parts broken away. Fig. 3, is a detail perspective view on an enlarged scale, of the wiper operating arm and its carrying bracket. Fig. 4, is an enlarged horizontal section taken on the line IV—IV of Fig. 2. Fig. 5, is a horizontal section taken on the line V of Fig. 2.

In the said drawing, 1 is the vise or frame on which the first elevator 2 is mounted.

3 and 4 are the guide gibs for guiding the right hand beveled edge of the elevator.

5 are the front trimming knives, one of which appears in Fig. 2 and both in Fig. 5, these knives being adapted to trim the ribs off the slugs as the latter are forced between them by the ejector.

The wiper is of precisely the same construction and arrangement as that shown in the aforesaid patent, and is adapted to slide in the guide gibs 3 and 4, and consists of a substantially U-shaped frame equipped with an angle plate. The frame comprises the vertical portion 6, the horizontal portion 7 extending laterally to the right from the lower end of the portion 6, the short vertical portion 8 extending upward from portion 9 and equipped at its upper end with the ob-

tuse-angle shaped wiper plate 11 forming the wiper proper, the body portion of the angle plate being adapted to wipe the points or edges of the knives as shown in Figs. 2 and 5, and the oblique portion of said plate being prolonged downward, though not so shown in the drawings, in order to provide an extended bearing on one of the knives in order to remain in contact with the righthand knife when the body portion of the wiper passes above the left hand knife which terminates below the top of the right-hand knife.

The arm 6 of the wiper is mounted to slide as hereinbefore stated in the guide gibs, so that it shall be compelled to reciprocate vertically, the resiliency of the frame holding the angle plate pressed lightly against the face of the left hand knife so that its body portion shall not bear with any material pressure against and thus dull the edges of the knives, it being also obvious that by this arrangement the knives are prevented from cutting said blade.

Secured upon arm 6 is an upper projection or collar 12, and a lower projection or collar 13, and secured to the elevator 2 is an angle bracket 14 and pivoted to the upper or horizontal arm of said bracket at 15 is an arm 16 capable of swinging in a horizontal plane and provided with a hole 17 through which arm 6 slidably extends.

The arm 16 is arranged pivotally to automatically accommodate itself to lateral play of arm 6 of the wiper frame, such play occurring after a period of service, because of the gradual enlargement of the holes in the guide-gibs, by the frictional action thereon, of the said arm 6.

18 is a coil spring fitted on the arm 6 below the collar 12 and adapted to impose on said collar, the upward pressure applied by arm 16 when the elevator moves upward, such pressure at times, ceasing when collar 12 comes in contact with guide-gib 3. At other times such pressure continues for a longer period, as when the upward movement of the elevator continues after that of the wiper terminates, as hereinafter more particularly referred to.

19 is the "recasting banking-lever" fulcrumed as usual on the lower side of gib 4. As well known the position of this lever determines the height to which the elevator 2 is raised. When said lever is swung to one



side it shortens the upward stroke of the elevator 2 by five-sixteenths of an inch by acting as a stop for the set screw 20 and thus prevents the bold face characters from dropping into line with the Roman characters.

When the elevator 2 is moved up as far as possible under these conditions; the wiper will be pushed up by the pressure of arm 16 on spring 18, as far as it would have been pushed if the recasting banking lever had not been used because of the interposition of the spring between arm 16 and collar 12, the spring being of such stiffness or strength as to barely yield before starting the wiper upward, it being of course, understood that the spring 18 is of such proportion that it will be engaged by arm 16 when the first elevator has slightly more than five-sixteenths of an inch to travel.

When the recasting banking lever is not employed and consequently when the first elevator is permitted to make its full stroke, the wiper is likewise moved upward its full distance because the spring, when engaged by the upwardly moving arm 16, does not appreciably yield until collar 12 comes into engagement with gib 3, and is arrested thereby. When this engagement takes place, said spring yields five-sixteenths of an inch under the pressure of arm 16 so as to permit the balance of the upward travel of the elevator to occur without further movement on the part of the wiper.

From the above description, it will be apparent that I have produced a knife wiper mechanism which automatically accommodates the operation of the first elevator without regard to whether said elevator makes its full travel or not, and in this respect it is better than, and differs from the construction of the patent hereinbefore identified, because in such construction it is necessary for the operator whenever the recasting banking lever is used, to manipulate the ratchet pawl of said construction, said pawl being reversely manipulated when the recasting banking lever is restored to normal position.

It will be apparent that changes may be made in the form, proportion, detail construction and arrangement of the parts without departing from the principle of construction involved.

Having thus described the invention what I claim as new and desire to secure by Letters-Patent, is:—

1. In a linotype machine, the combination of reciprocatory first elevator, a knife wiper mechanism arranged to reciprocate in a plane parallel with this said elevator, and a spring element and an arm element, one of said elements being movable with the wiper and the other with the elevator and adapted as the latter moves upward, to impose upward pressure on the other element.

2. In a linotype machine, the combination of reciprocatory first elevator, a knife wiper mechanism arranged to reciprocate in a plane parallel with this said elevator, a spring element and an arm element, one of said elements being movable with the wiper and the other with the elevator and adapted as the latter moves upward, to impose upward pressure on the other element, and means to limit the upward movement of the wiper before the corresponding movement of the elevator ceases.

3. In a linotype machine, the combination of reciprocatory first elevator, a knife wiper mechanism arranged to reciprocate in a plane parallel with this said elevator, a spring element and an arm element, one of said elements being movable with the wiper and the other with the elevator and adapted as the latter moves upward, to impose upward pressure on the other element, and means to limit the upward movement of the elevator at about the same time the upward movement of the wiper is arrested.

4. In a linotype machine, the combination with the first elevator and an arm carried thereby, of a slidable knife wiper suitably guided and extending through said arm, and a spring adapted to be subjected to the pressure of the said arm of the elevator when the same is moving upward to effect like movement on the part of the wiper, and to yield when the upward movement of the latter ceases to permit the upward movement of said elevator to continue its full distance.

5. In a linotype machine, the combination of the reciprocating first elevator provided with an arm, guide-gibs contiguous thereto, a vertically movable knife wiper extending through said guide-gibs and said arm of the elevator, projections for the knife wiper above and below said arm and between said gibs, and a coil spring mounted on the knife wiper between said arm and the upper projection of the wiper, to be caused by said arm to push the wiper upward until its upper projection engages the overlying guide-gib.

6. In a linotype machine, the combination of the reciprocating first elevator provided with an arm, guide-gibs contiguous thereto, a vertically movable knife wiper extending through said guide-gibs and said arm of the elevator, projections for the knife wiper above and below said arm and between said gibs, and means to arrest the upward movement of the elevator as the upper projection of the wiper comes in contact with the overlying guide-gib.

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

FRANK A. PETTIT.

Witnesses:

H. C. RODGERS,  
G. Y. THORPE.