

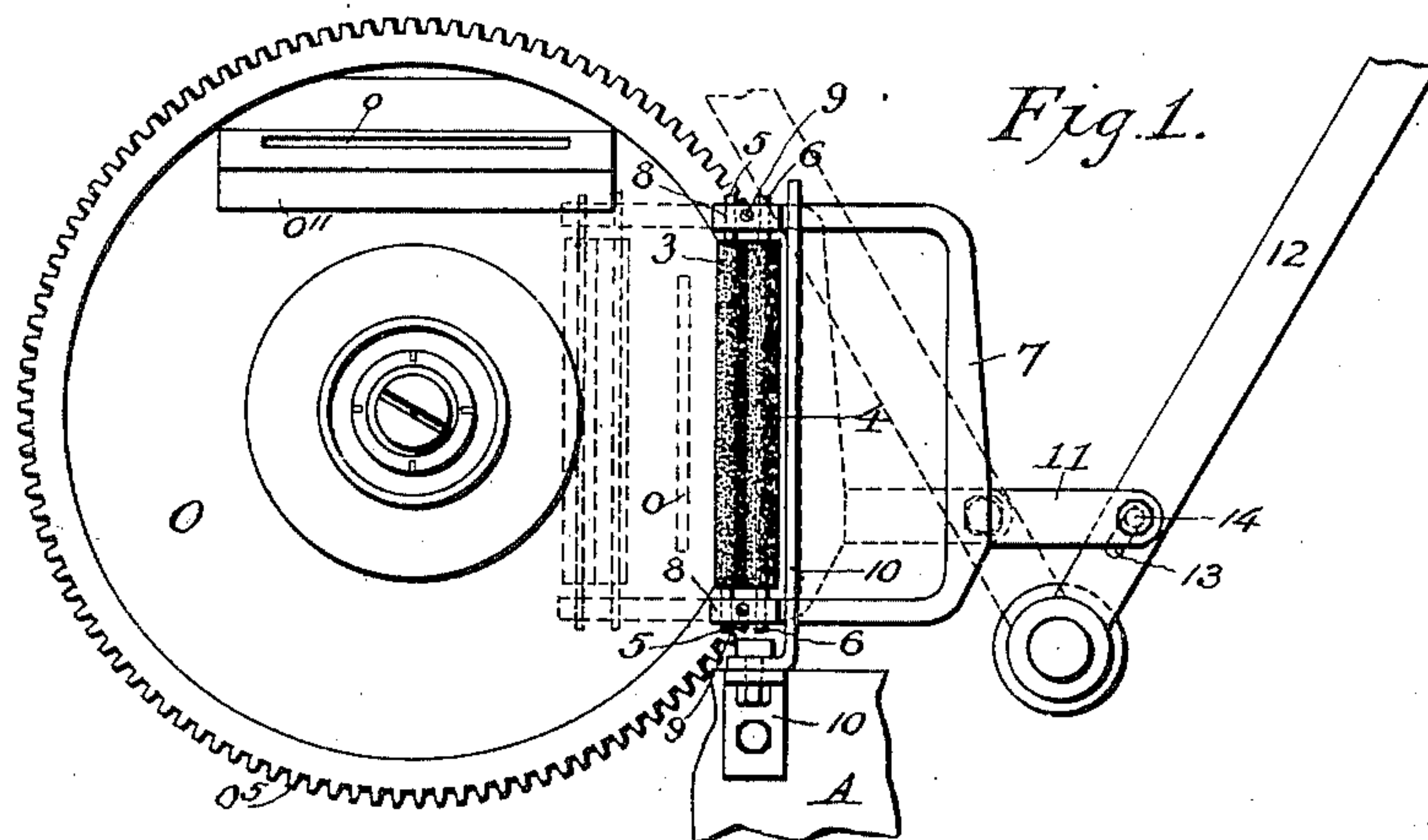
No. 659,800.

Patented Oct. 16, 1900.

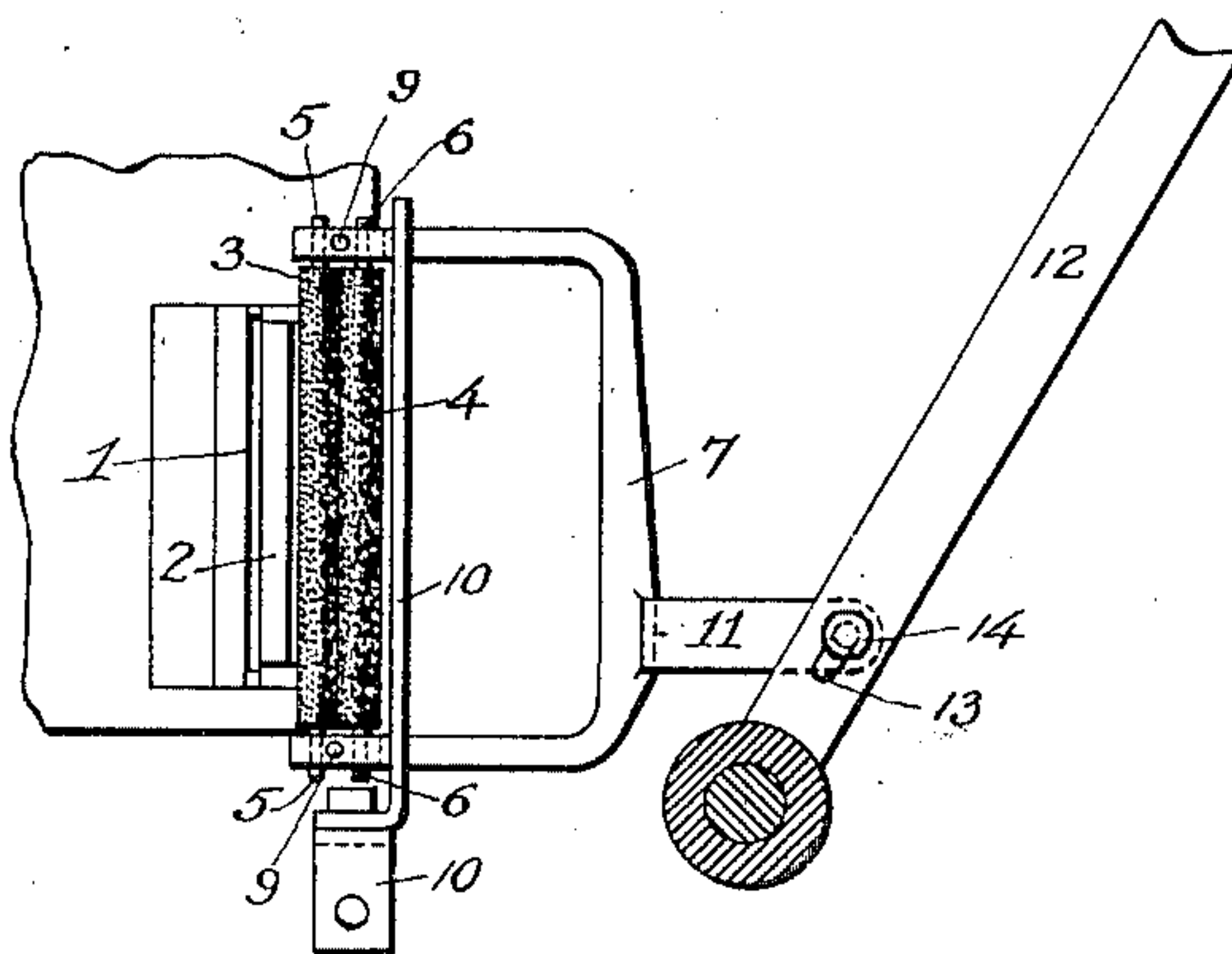
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WIPER MECHANISM FOR LINOTYPE MACHINES.

(Application filed May 23, 1900.)

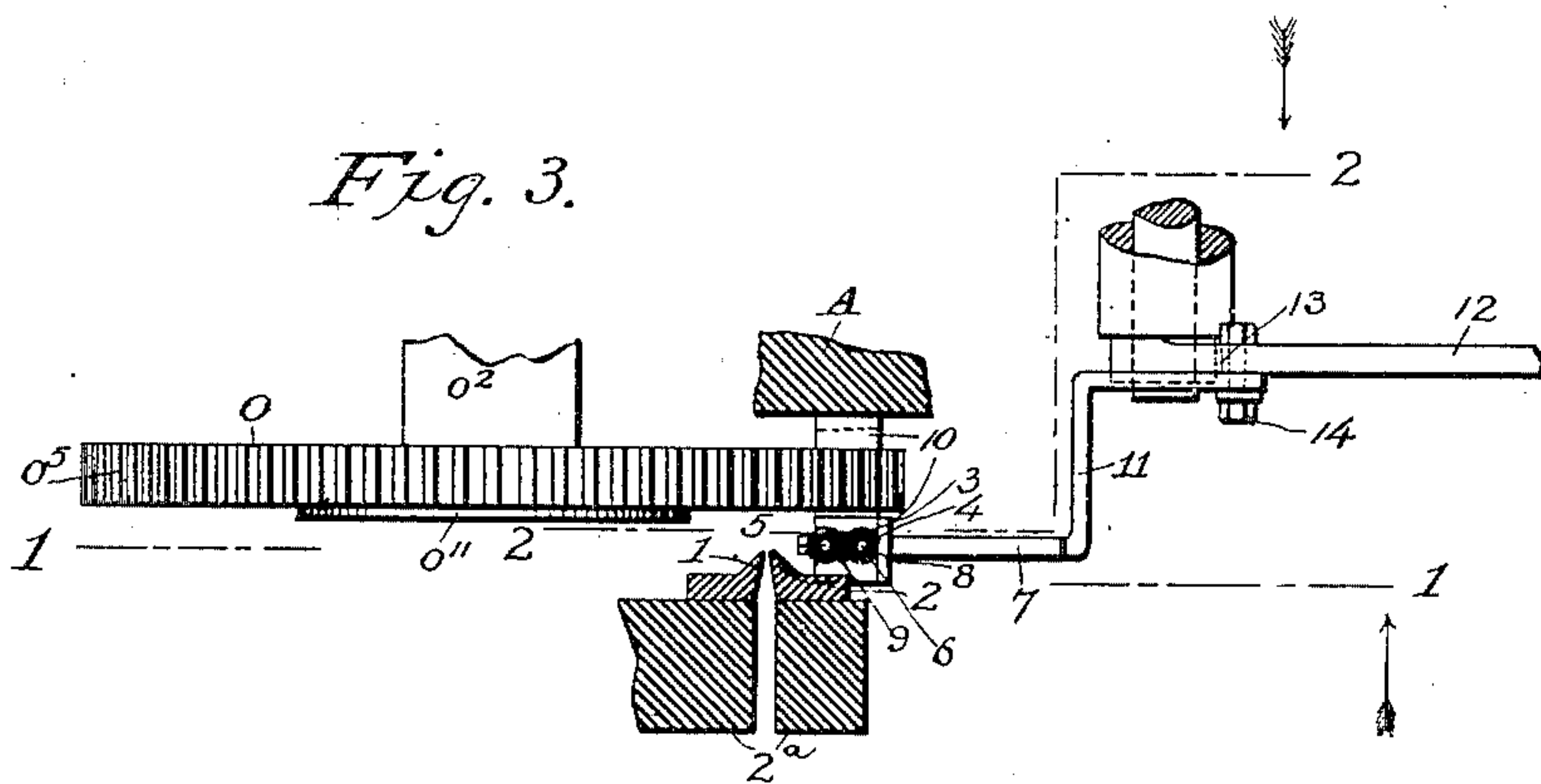
(No Model.)



*Fig. 2.*



*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

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## WIPER MECHANISM FOR LINOTYPE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 659,800, dated October 16, 1900.

Application filed May 23, 1900. Serial No. 17,696. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM CASSIN PRITCHARD, of Bristol, in the county of Gloucester, England, have invented certain new and useful Improvements in the Wiper Mechanism of Linotype-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-  
10 pertains to make and use the same.

The present invention relates to improvements in the wiper mechanism of linotype-machines, more especially in that of the Mergenthaler machine described in the specification of Letters Patent No. 436,532, dated Sep-  
15 tember 16, 1890. In that machine the linotype is cast in a slot in a so-called "mold-wheel" while the said slot is held by the wheel in a horizontal position against a row of formative  
20 cavities in the composed line of matrices. This composed line is moved through a part of its travel from the assembly-box in which the composition takes place to the casting position by a lever worked automatically by the  
25 machine. After the linotype has been cast the two sides of it must be trimmed, so as to be practically truly parallel with each other. For that purpose the mold-wheel is moved through an angle of two hundred and seventy  
30 degrees, so as to make it hold the slot in a vertical position to register with the space between two parallel vertical knives set apart at a distance equal to the trimmed thickness of the linotype. The wheel is moved up to  
35 the knives and the linotype pushed between them by a reciprocating ejector. The act of trimming the sides of the linotype by the cutting edges of the knives as it is so pushed between them leaves fragments of metal ad-  
40 hering thereto, and there are fragments sometimes left adhering to the face of the wheel immediately adjacent to the slot in it. It is the function of the wiper to remove all these fragments.

45 According to the present invention the wiper consists of one or more brushes circular in cross-section and of the proper diameter, length, and stiffness and which are mounted vertically in a frame capable of horizontal re-  
50 ciprocating motion between the knives and mold-wheel.

Referring to the accompanying drawings, which are to be taken as part of this specification and read therewith, Figure 1 is a front elevation on the line 1 1 of Fig. 3 looking at  
55 it in the direction of the bottom arrow; Fig. 2, a rear elevation on the line 2 2 of Fig. 3 looking at it in the direction of the top arrow, and Fig. 3 a plan of both the preceding figures.

O is the mold-wheel, and o the slot, which  
60 latter is formed for convenience in a detachable block  $o^{11}$ , fixed to the face of the said wheel.  $o^5$  is the gearing by which the latter is turned by a suitably-driven pinion, (not shown in the drawings,) and  $o^2$  is the wheel-  
65 journal.

The slot o, it may be mentioned, extends through the wheel O from the front to the rear face, that its length is parallel with a diam-  
70 eter of the said wheel O, and that its width is parallel with the axis of the latter. The full lines of Fig. 1 show the slot o in the above-mentioned horizontal or casting position, while the dotted lines on the right hand of  
75 the said figure show it in the trimming position.

1 2 are the pair of trimming-knives fixed to the knife-block 2<sup>a</sup>.

3 4 are the two brushes of the improved wiper. The number is indifferent. There  
80 may be only one; but two are preferred, because experience has shown that they do the work of wiping perfectly under all circumstances, which one brush might not do. They are both of the same length, not much less  
85 than that of the mold-block  $o^{11}$ , of sufficient diameter to brush both knives and mold-face when the mold-wheel O is in the trimming position, and stiff enough to do that trimming well. The material of them is preferably  
90 bristles.

5 6 are the spindles of the brushes 3 4. The ends of them project above and below the brushes proper for the purpose of entering  
95 the wiper-frame 7, which holds them in a vertical position and reciprocates them over both the knives 1 2 and the face of the mold o. The ends of the spindles 5 6 are inserted in the respective journals in the frame 7 in any convenient way. It is preferred that the end  
100 of each frame should have a detachable cap-plate 8 8, to be held in position by a hold-



ing-screw 9. Each cap-plate is screwed up tight enough to prevent the spindles 5 6 turning in their journals.

10 is a slotted guide for the frame 7 to work through. It is fixed to the frame A of the machine or to some fixed part of it.

11 is a cranked connecting-rod from the right-hand edge of the frame 7 to the operating-lever 12, above mentioned, and to which it is connected by a bolt and nut 13, passed through a compensating slot 14 in the said lever 12.

The wheel O being in the normal position—i. e., with the slot o registering with the space between the knives 1 2 and a short distance to the rear of them—the machine rocks the lever 12 from its right-hand position (shown by the full lines of the three figures) over to the left into the position shown in dotted lines in Fig. 1. The object of this throw has been already explained. During this motion of the said lever the improved wiper wipes both the knives 1 2 and the face of the mold. Before the lever 12 is rocked back again the mold-wheel O is turned up through a quarter of a circle into the casting position, so that only the knives 1 2 are wiped by the return motion of the said wiper.

My wiper is distinguishable from those heretofore in use, first, in that it is movable transversely across the edge of the knives instead of being movable lengthwise the knives; second, in that the wipers are of the full length of the knives, so that each knife may be wiped from one end to the other at one time, and, third, in that there are two wiping-surfaces which act successively on each knife of the pair.

I claim—

1. An improved wiper for the trimming-knife of a linotype-machine, consisting of a vertical brush equal in length to the knife, a frame to guide the same transversely of the knife, and a connecting-rod from said frame to a reciprocating member of the machine.

2. In a linotype-machine and in combina-

tion with a knife to trim the side of the slug, one or more brushes lying parallel with the length of the knife, a frame to guide the same transversely of the knife, and a connecting-rod from said frame to a vibrating lever forming part of the machine, substantially as described and shown.

3. In a linotype-machine, in combination with a knife for trimming the side face of the slug, a wiper acting transversely past the edge of the knife, substantially as described.

4. In a linotype-machine, the combination of a knife for trimming the side face of the slug, a wiper having a length equal to that of the operative portion of the knife, and means for reciprocating said wiper across the edge of the knife.

5. In a linotype-machine, and in combination with a knife for trimming the side face of the slug, a cylindrical wiper lying parallel with the edge of the knife and arranged to act across the same.

6. In a linotype-machine, the combination of a knife for trimming the side face of the slug, a cylindrical wiper lying parallel therewith, and mechanism for moving said wiper across the edge of the knife.

7. In a linotype-machine, the combination of the two trimming-knives, the two cylindrical wipers, and mechanism substantially as shown for carrying said wipers across the edges of the knives.

8. In a linotype-machine, a slug-trimming knife, a wiper of cylindrical form lying parallel with the edge of the knife, means for reciprocating said wiper across the edge of the knife, and means for permitting rotary adjustment of the wiper and securing the same against rotation.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WILLIAM C. PRITCHARD.

Witnesses:

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