

PATENTED SEPT. 5, 1905.

W. C. VAN VLIET.
MECHANICAL MOTION.
APPLICATION FILED JAN. 11, 1905.

Fig. 1.

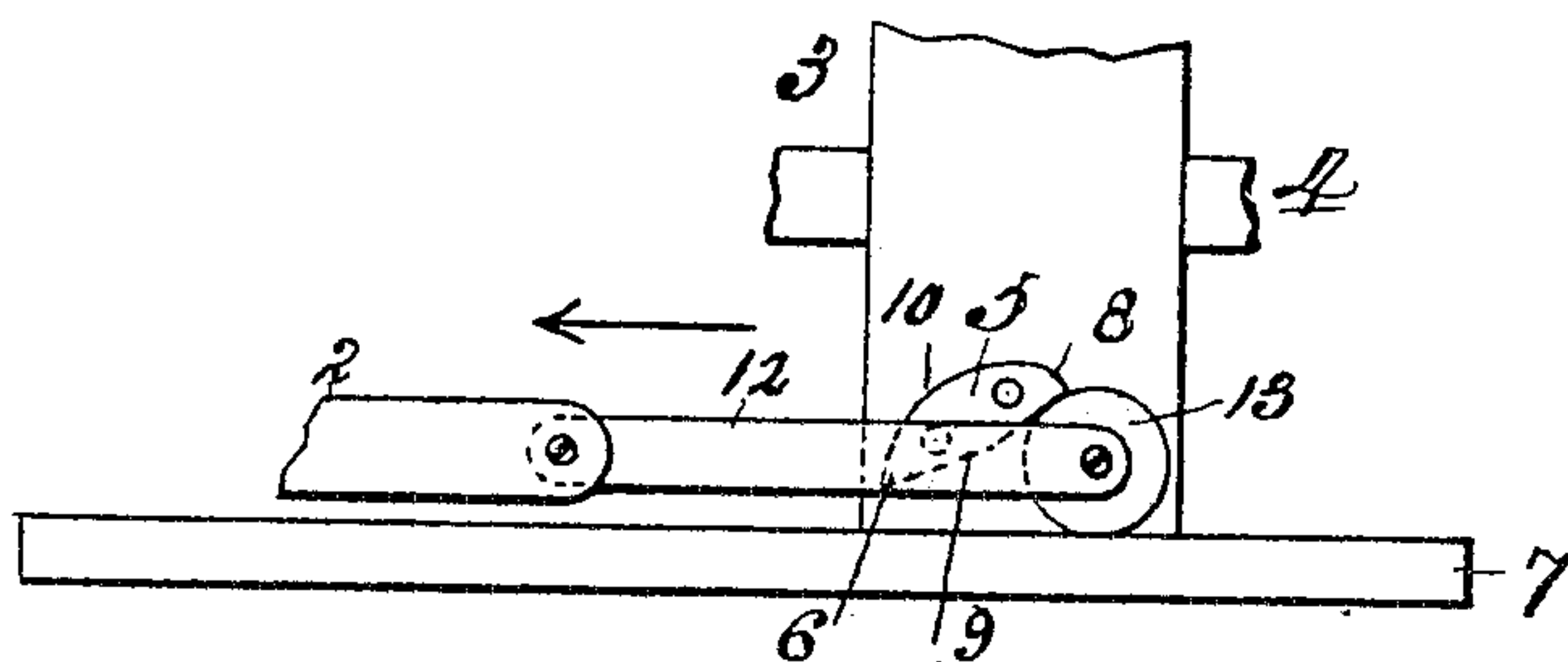


Fig. 3.

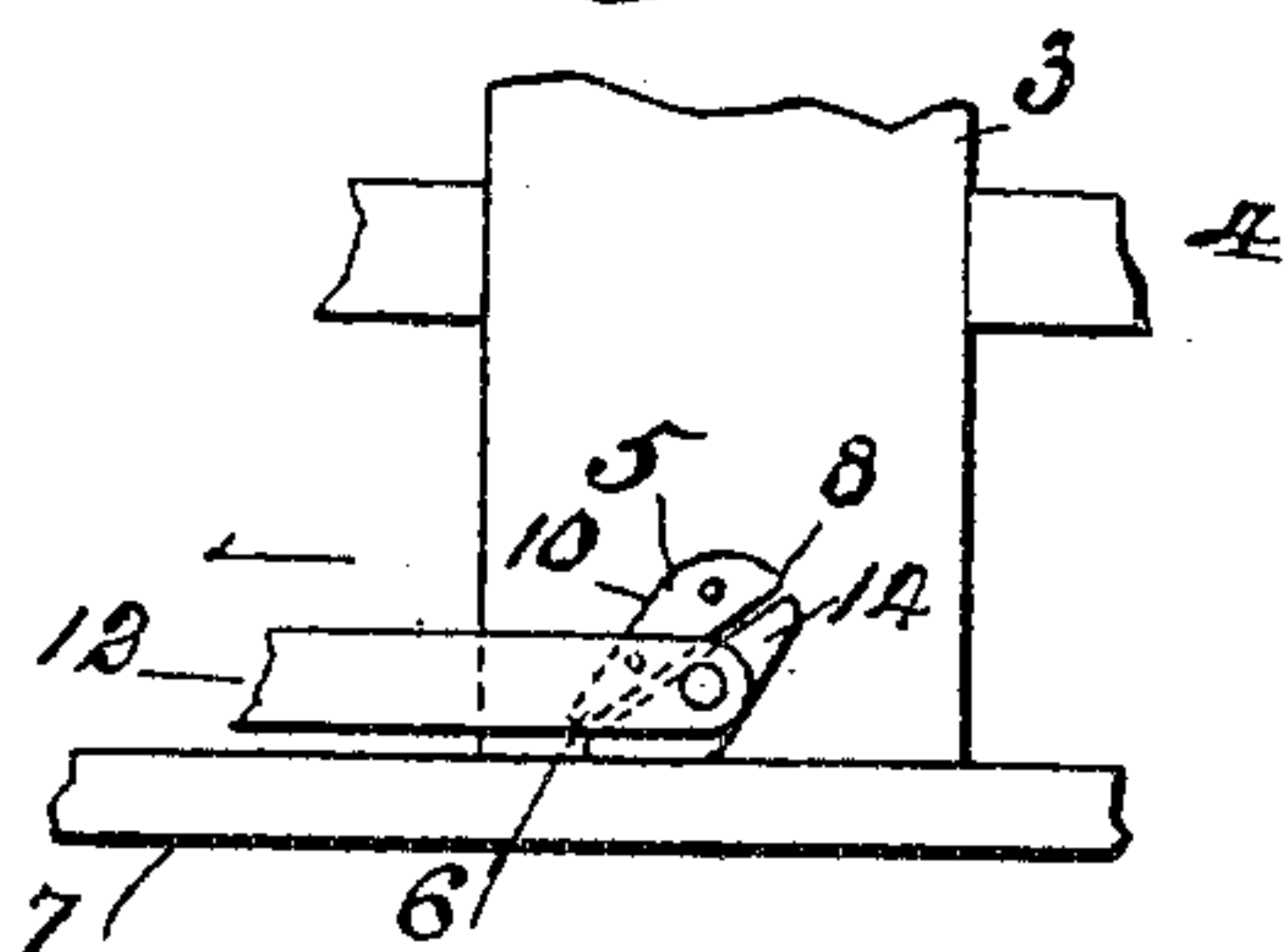


Fig. 4.

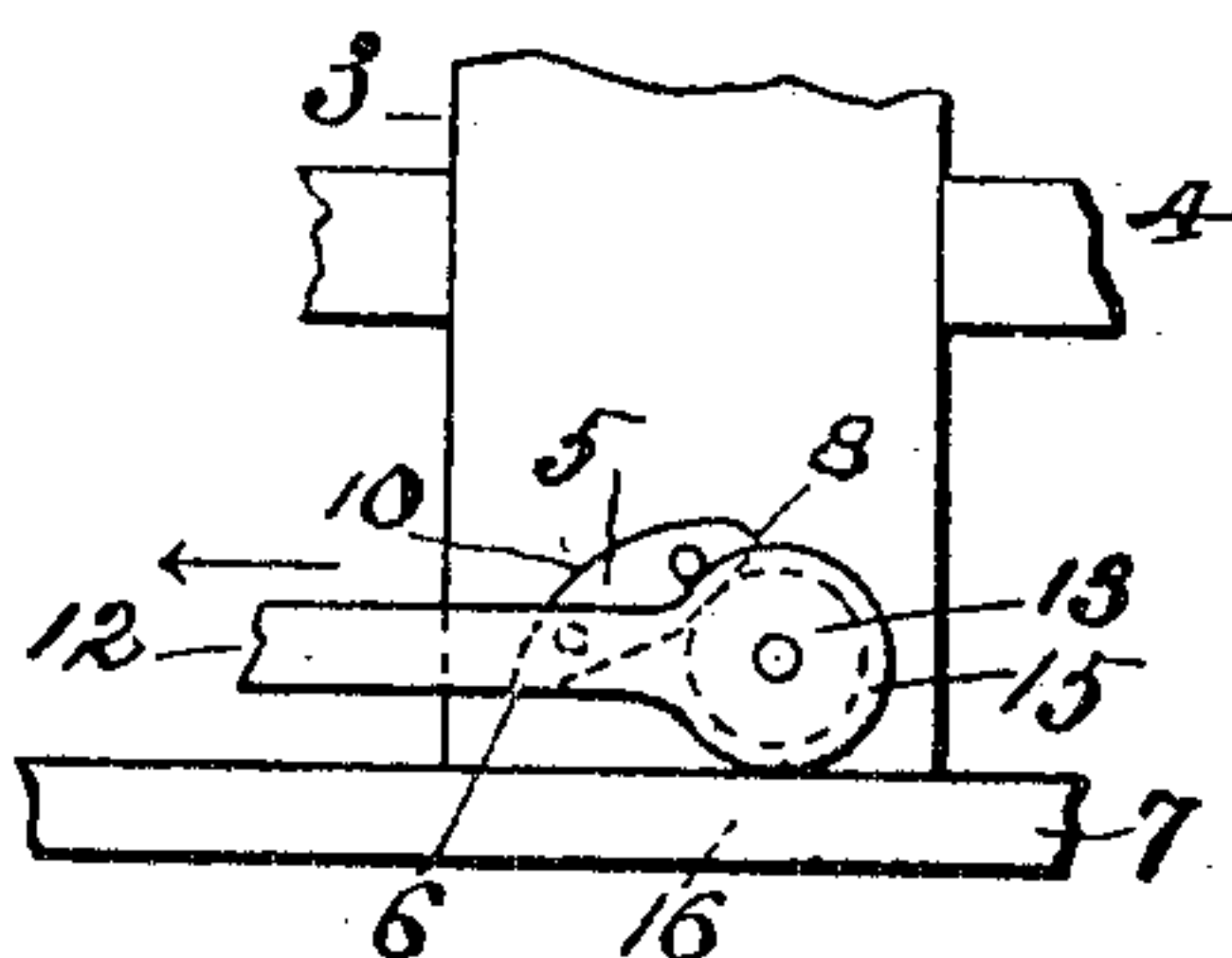


Fig. 2.

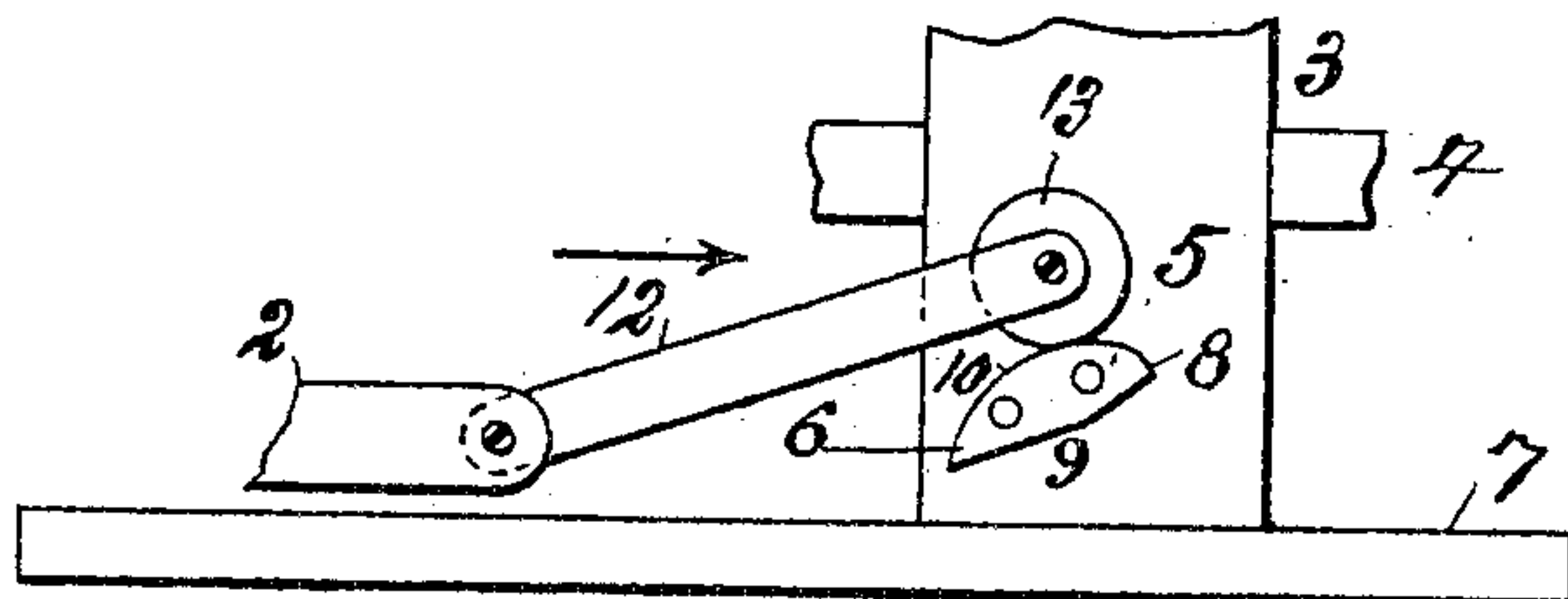
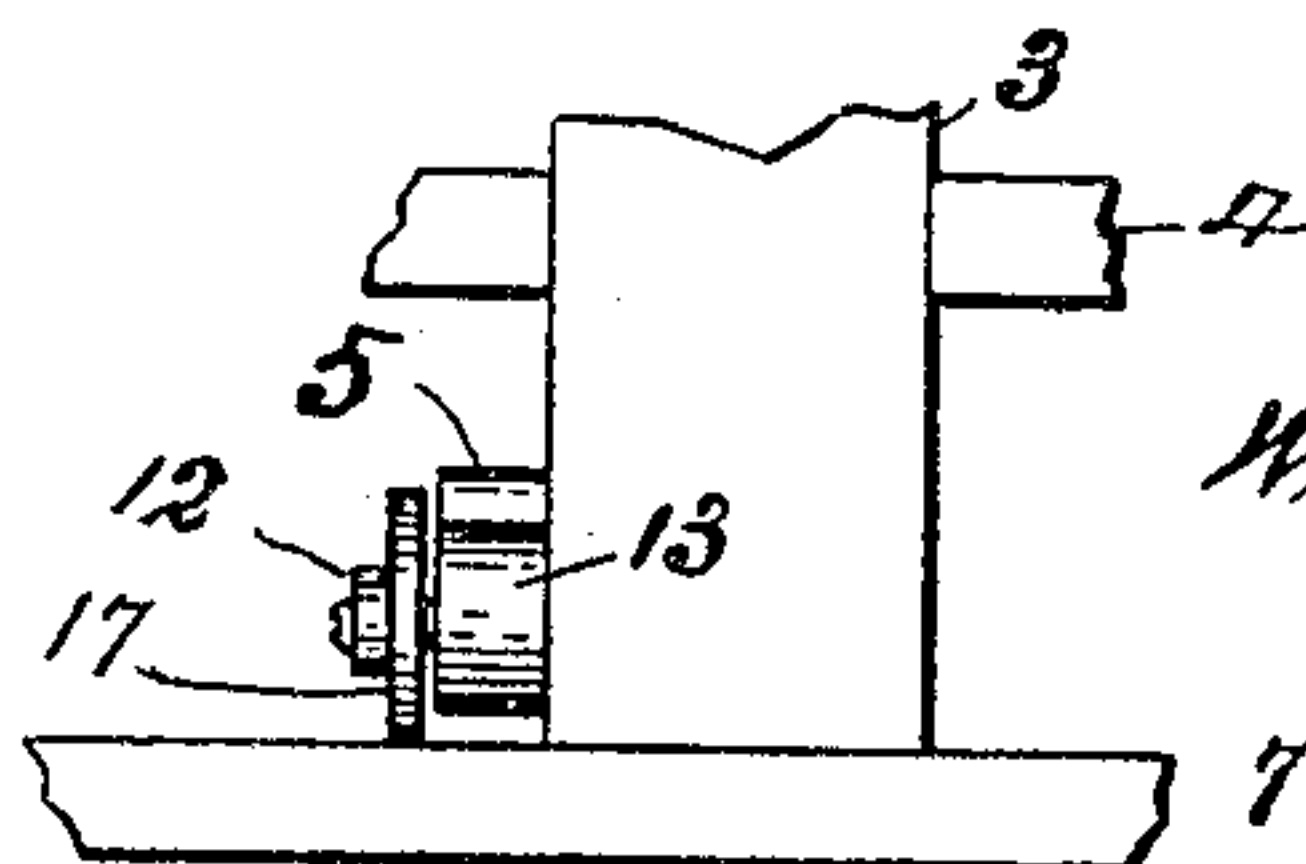


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM C. VAN VLIET, OF NEW YORK, N. Y.

MECHANICAL MOTION.

No. 798,716.

Specification of Letters Patent.

Patented Sept. 5, 1905.

Application filed January 11, 1905. Serial No. 240,537.

To all whom it may concern:

Be it known that I, WILLIAM C. VAN VLIET, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Mechanical Mo-

5 tions, of which the following is a specification. My invention relates to a new mechanical movement whereby reciprocating movement of the primary member in one direction is converted into reciprocating motion of the secondary member at an angle to the primary member.

15 In the accompanying drawings, to which reference is made and which form a part of this specification, Figure 1 is a diagrammatic side elevation of my invention, the members being arranged so that a right-line horizontal motion is converted into a right-line vertical movement, Fig. 2 showing the primary member in its back stroke, and Figs. 3, 4, and 5 show modifications.

20 In the drawings, 2 designates the power or primary member, and 3 the secondary or operated member. The primary member 2 has imparted to it a reciprocating motion—as, for example, a horizontal motion—by suitable power. The secondary member 3, as here shown, is a shaft, block, weight, or other device held in a suitable frame, bearing, or other support 4. On the side of this member is formed or secured a stud, flange, or projection 5, whose end 6 adjacent to the primary member 2 is nearer the bed 7 than is its opposite end 8, so that its lower edge 9 is inclined. Its upper edge 10 is also inclined or rounded. To the primary member 2 is pivoted an arm or link 12, the free end of which is furnished with a lifting device 13, preferably in the form of a roller, which on the movement of the primary member in the direction of the arrow in Fig. 1 runs upon a support 7 beneath the projection 5, and thus lifts the secondary member 3 and having passed the said cam or projection allows it to descend. On the return stroke of the primary member in the direction of the arrow in Fig. 2 the lifting device or roller rides over the upper edge of the projection and drops in front of it, ready to repeat the operation.

50 In Fig. 3 a lifting device in the form of a cam or shoe 14 is employed in place of a roller,

as shown in Figs. 1 and 2. In the form shown in Fig. 4 a roller is employed, as in Figs. 1 and 2, but it is held out of contact with the bed 7—that is to say, the end 15, to which it is journaled, is larger than the diameter of the roller, so that the edge 16 thereof makes contact with the surface of the bed 7. In Fig. 5 is shown a second roller 17, larger in diameter than the roller 13 and which runs in contact with the bed, the roller 13 turning in the opposite direction from contact with the projection 5.

60 I do not limit myself to the special form of the projection 5 nor the form of the lifting device 3, as various forms of these parts may be devised nor do I limit myself to the special arrangements as shown.

My invention is applicable to machines for applying stamps to envelopes and to valve-motions for steam-engines and in various other situations wherein reciprocating motion at an angle to another reciprocating motion is desirable.

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

1. As a mechanical movement, a reciprocating or power primary member, an arm pivoted thereto, the free end of which arm is furnished with a lifting device combined with a secondary member having a projection thereon beneath and over which the said lifting device travels with the back-and-forth stroke of the primary member, substantially as described.

2. The secondary member provided with a diagonal projection, the reciprocating member having an arm pivoted thereto and having a lifting device connected to its free end and a bed upon which said lifting device moves during one of the strokes of the primary member, substantially as described.

3. The secondary member provided with a projection, the reciprocating primary member provided with two rollers, one to run in contact with the bed, the other to run in contact with the said projection, substantially as described.

WILLIAM C. VAN VLIET.

Witnesses:

H. ALBERTUS WEST,
M. J. MAHONY.