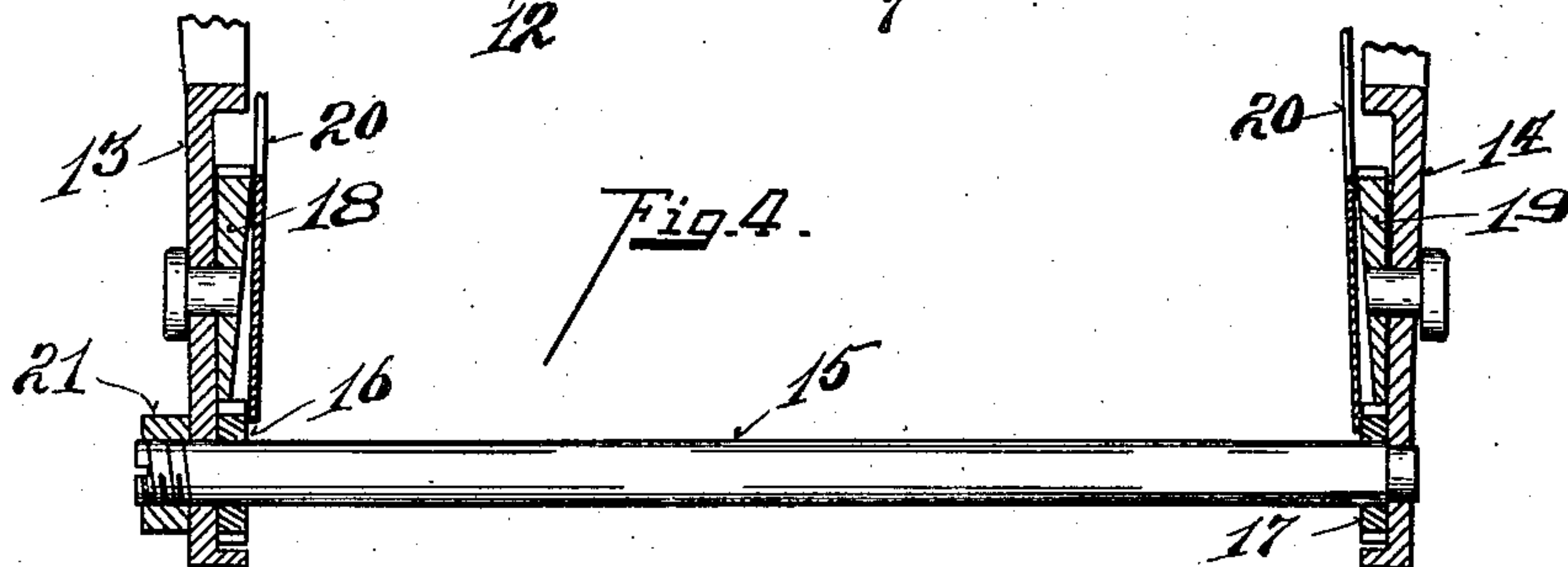
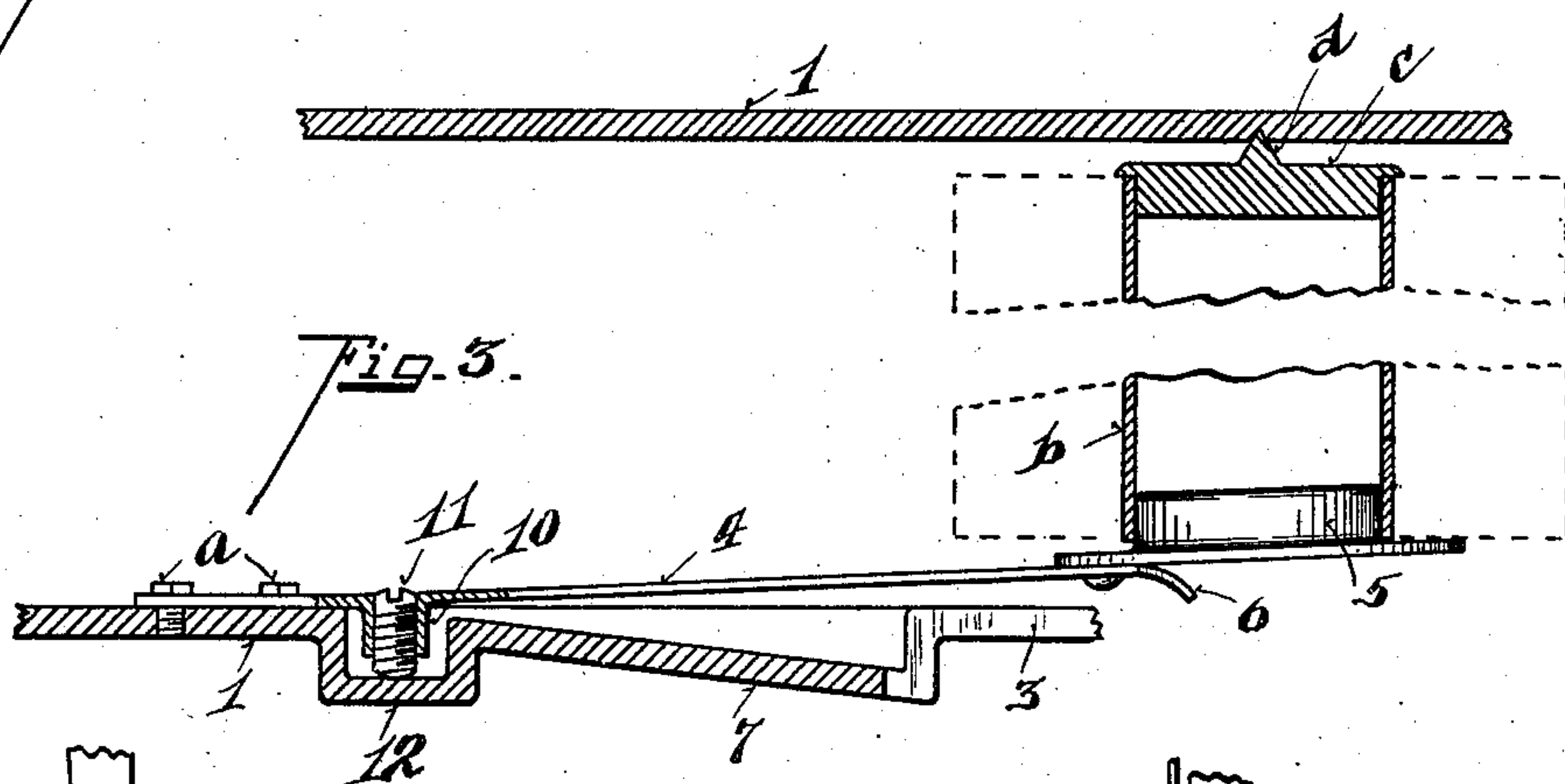
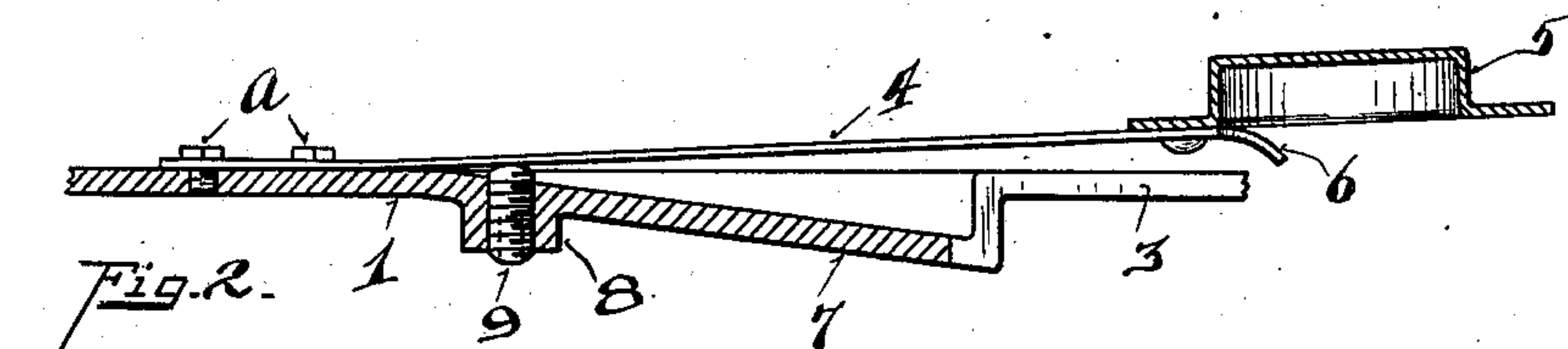
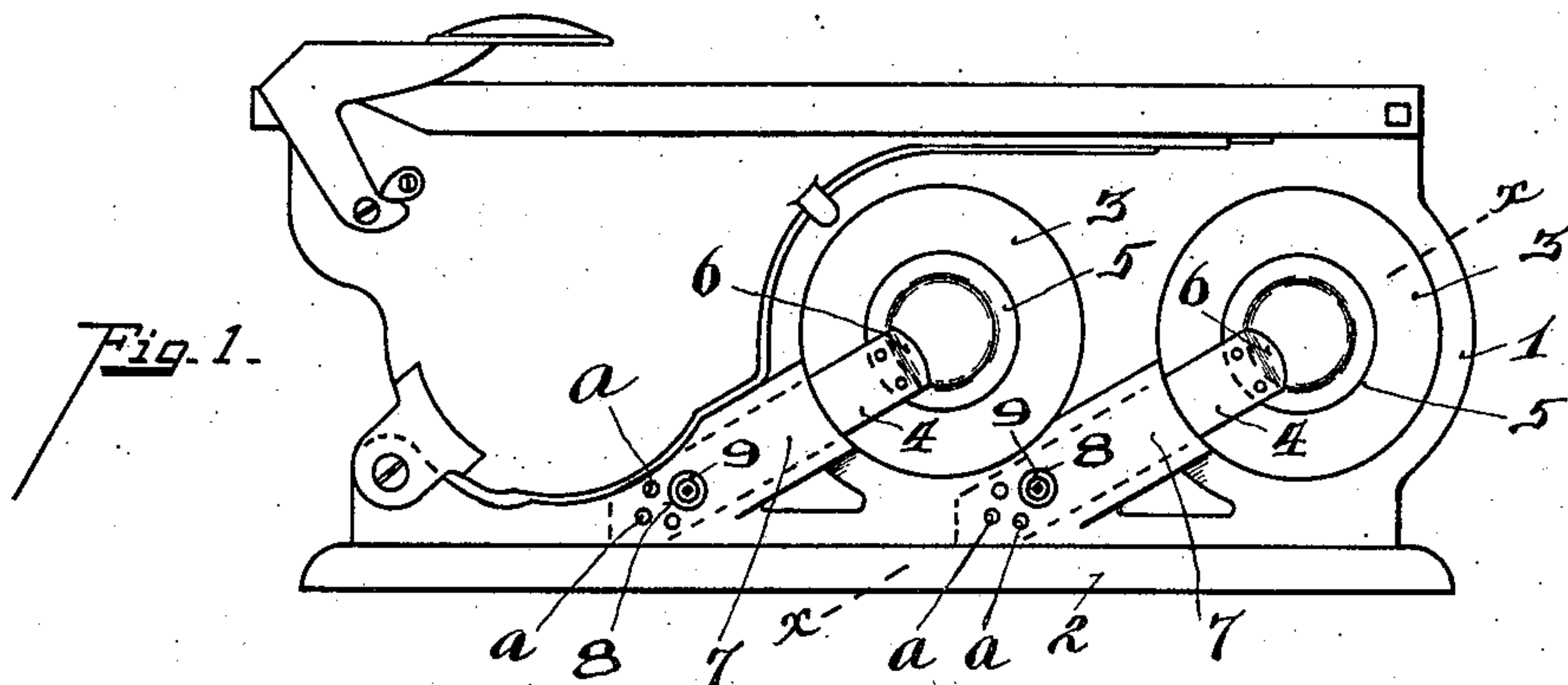


No. 844,370.

PATENTED FEB. 19, 1907.

A. KRAUTH.
AUTOGRAPHIC REGISTER.
APPLICATION FILED NOV. 27, 1906.



Witnesses

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UNITED STATES PATENT OFFICE.

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AUTOGRAPHIC REGISTER.

No. 844,370.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed November 27, 1905. Serial No. 289,261.

To all whom it may concern:

Be it known that I, ALBERT KRAUTH, a citizen of the United States, residing at Hamilton, in the county of Butler and State of Ohio, have invented certain new and useful Improvements in Autographic Registers, of which the following is a specification.

My invention relates to an improvement in roll-holders for autographic registers.

The object of the invention is to provide means for controlling and adjusting the tension of the roll-holders, so as to make the same durable and efficient under the varying conditions required by the daily use of registers.

The features of my invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of a register with my improved roll-holders. Fig. 2 is a section on line *x x*, Fig. 1. Fig. 3 is a sectional view taken on a similar line as that of Fig. 2, illustrating a modified form. Fig. 4 is a sectional view of a modified form of adjusting means in which two roll-holders are adjusted simultaneously.

1 represents the side frames of the machine. 2 represents the base thereof.

3 represents the openings in the side frame for gaining access to the roll-holders for inserting or removing the roll of paper.

4 represents the spring-arms for holding the rolls of paper attached at one end to the side frames and provided with the disks 5.

6 represents the bent-over portion of the spring-arms, forming convenient means for gripping the arms.

7 represents an inclined recess formed in the side frames opposite the planes of the spring-supporting arms, permitting the arms to be retracted within said recesses, giving greater outward movement of said arms. The spring-arms 4 are secured at their lower ends to the side frame.

It is highly desirable to adjust the tension of these springs in such manner that the rolls will not overrun when the paper is drawn off the rolls or to have any backward tendency of movement when the drawing strain is stopped, also to allow the tension to the varying conditions of the different uses to which the register is employed. It has been found difficult to have a predetermined and permanent condition of friction of the spring-arms upon the paper adapted to all the uses.

The following means is the preferred form of overcoming these difficulties: 8 represents a boss formed integral with the frame, through which is threaded a set-screw 9, the point of which limits the backward motion of the spring-arms. (See Figs. 1 and 2.) *a* represents the screws for securing the spring-arms to the frame. Each side of the frame is provided with similar instrumentalities. The adjustment of the screw 9 out and in regulates the tension of the spring-arms, and consequently the frictional force applied to the rolls.

In Fig. 3 is shown a simple modification of the means of applying the regulating tension-screws, which consists in forming a boss 10 on the arm of the spring and threading a tension-screw 11 through the same to bear against the recessed boss 12, formed integral with the frame. The method prevents moving of screw except from the inside, preventing careless manipulation of the adjusting-screw. *b* represents a core upon which the paper forming the roll is wound and in which the boss of the disk 5 fits. The opposite end of the core is provided with a plug *c*, having a journal-point *b*, adapted to journal in the side frame.

It is sometimes desirable to adjust the tension of both spring-arms simultaneously. One method of accomplishing this is shown in the modification Fig. 4, in which 13 14 represent the side frames of a register. 15 represents a shaft passing through both sides of the frame.

16 17 represent gears fixed to the shaft 15 at each end thereof and upon the inside of the side frames.

18 19 represent taper-face or wedge-shaped gears in mesh with gears 16 17, respectively, and loosely journaled to the side frames. These gears being of incline or wedge formation press the spring-arms outward as the thicker portions of the gears are brought into contact with the spring-arms. Said spring-arms recede as the thinner portion of the gears 18 19 are brought into supporting contact with the spring-arms. By this means any desired uniform tension of both arms may be easily and simultaneously obtained by revolving the shaft 15, thereby moving both trains of gears.

21 represents a lock-nut for locking the shaft to any adjusted position of the arms.

Having described my invention, I claim—

1. In an autographic register, side frames, a pair of resilient arms, one end of said arms being attached to the side frame of the register, a disk fixed to the free end of each arm, 5 said disks being provided with cup-shaped projections adapted to fit into the core of a roll of paper, said arms extended over the cup-shaped projections of the disks forming a handle, and means for adjusting the tension of said arms, substantially as described. 10

2. In a roll-holder for autographic registers, side frames, a pair of resilient arms, one end of said arms being attached to the op-

posite sides of the register-frame, the free end of said arms being provided with a disk, 15 means for journaling a roll of paper centrally between the disks, and means for simultaneously adjusting the tension of the spring-arms, substantially as described.

In testimony whereof I have hereunto set 20 my hand.

ALBERT KRAUTH.

Witnesses:

OLIVER B. KAISER,
LEO O'DONNELL.