

T. C. McGEOWN.
 AUTOGRAPHIC REGISTER.
 APPLICATION FILED DEC. 5, 1907

923,990.

Patented June 8, 1909.

2 SHEETS—SHEET 1.

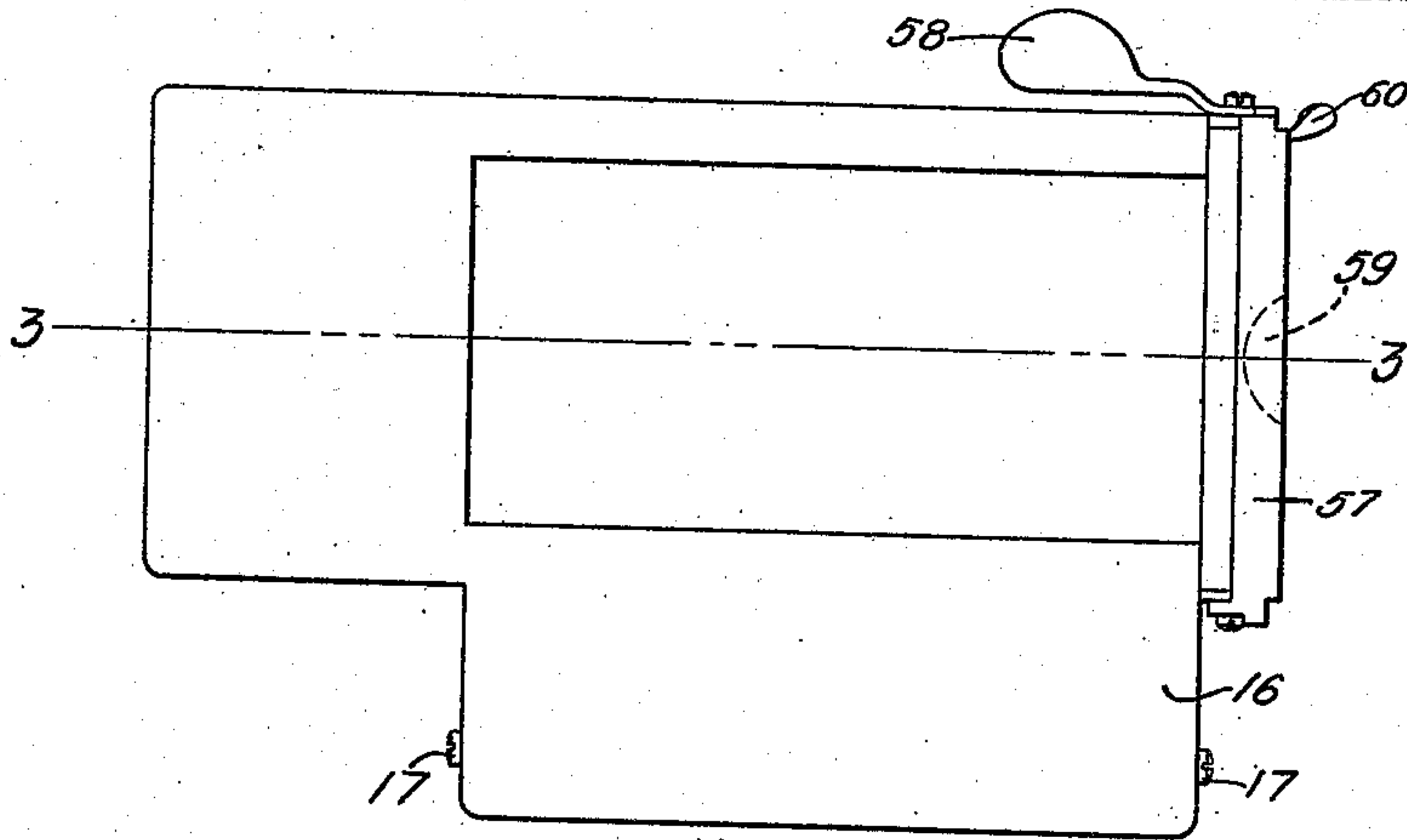


Fig. 1.

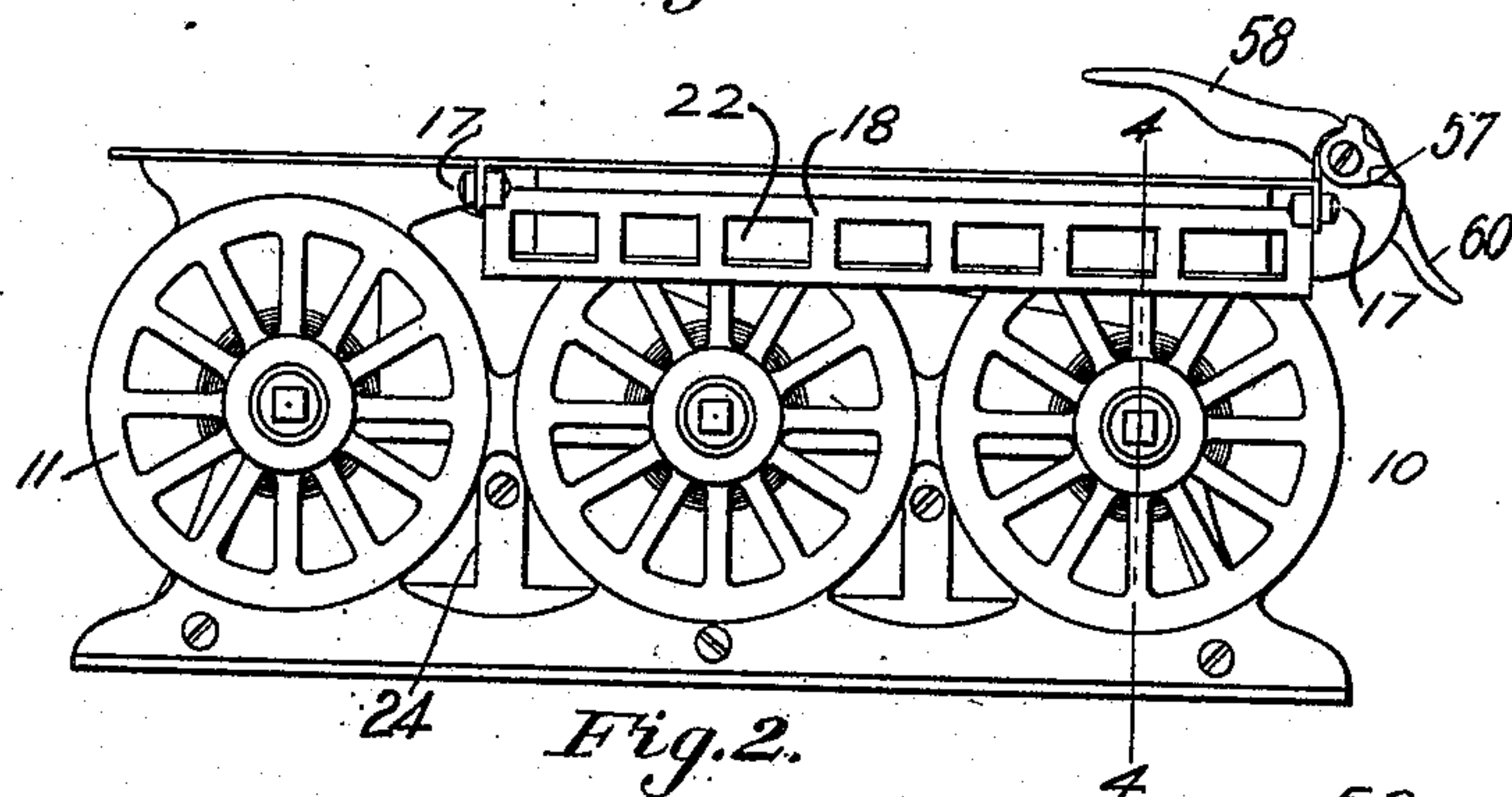


Fig. 2.

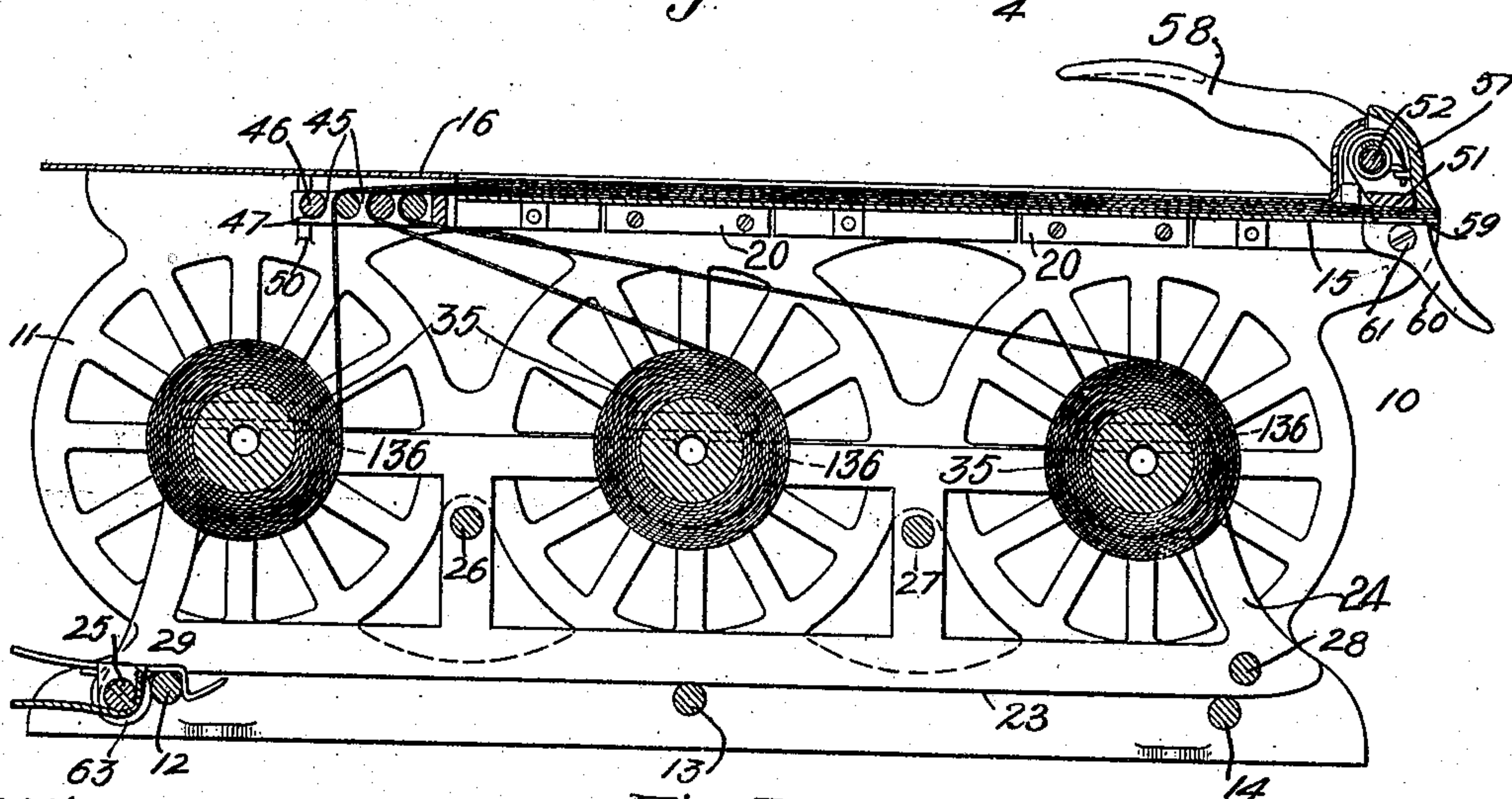


Fig. 3.

Witnesses:

Walter L. Cline
 Francis H. Bishop

By his attorney,

Inventor:

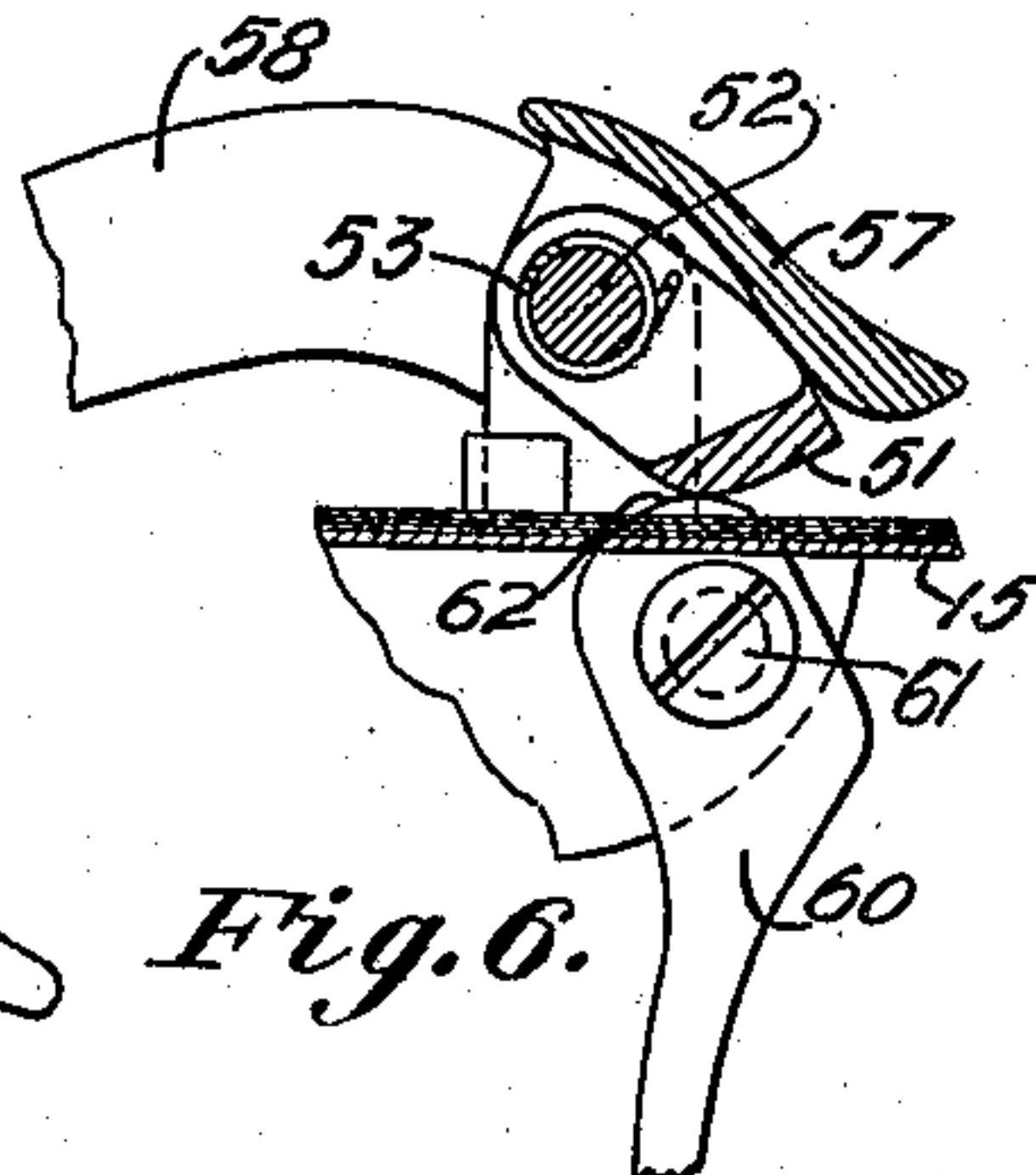
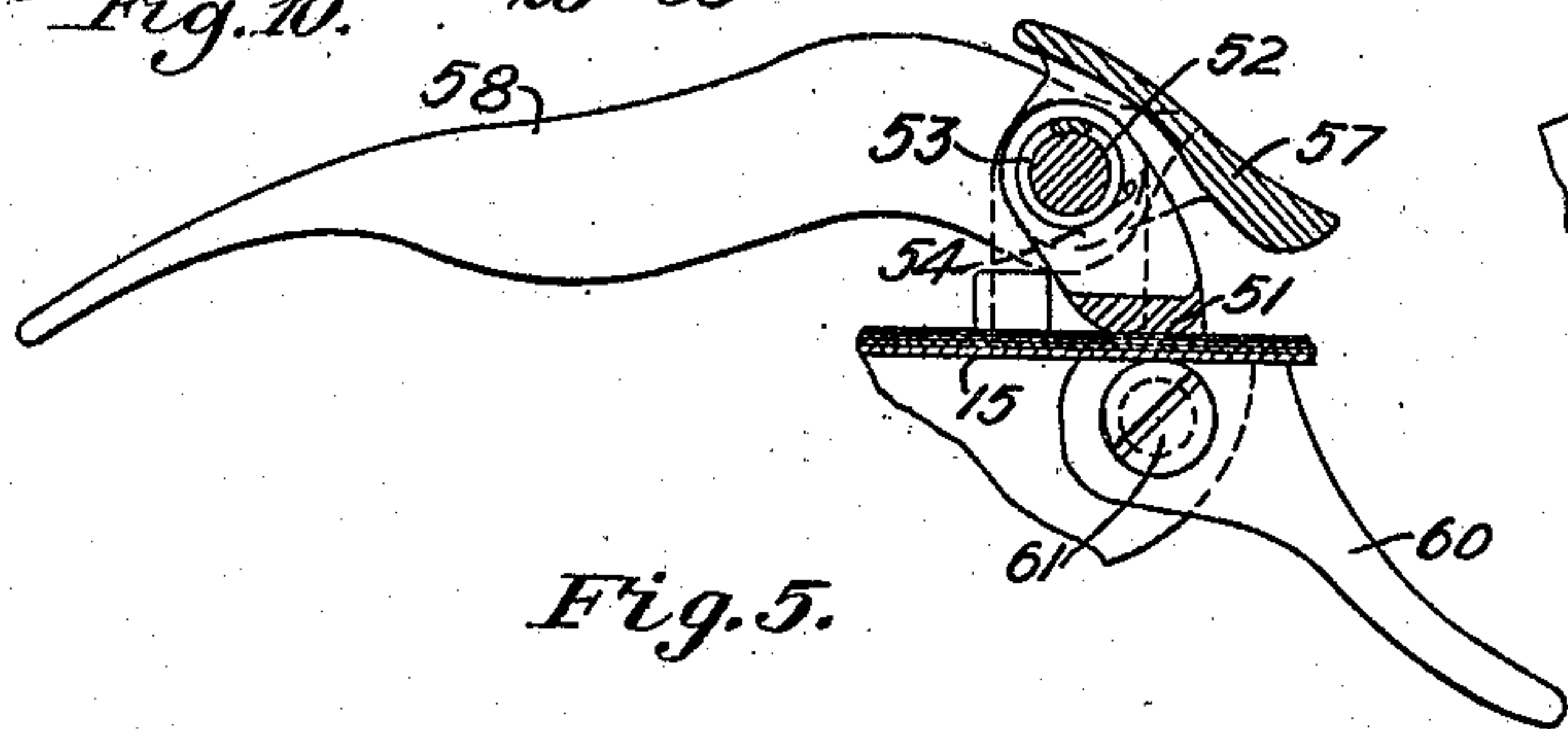
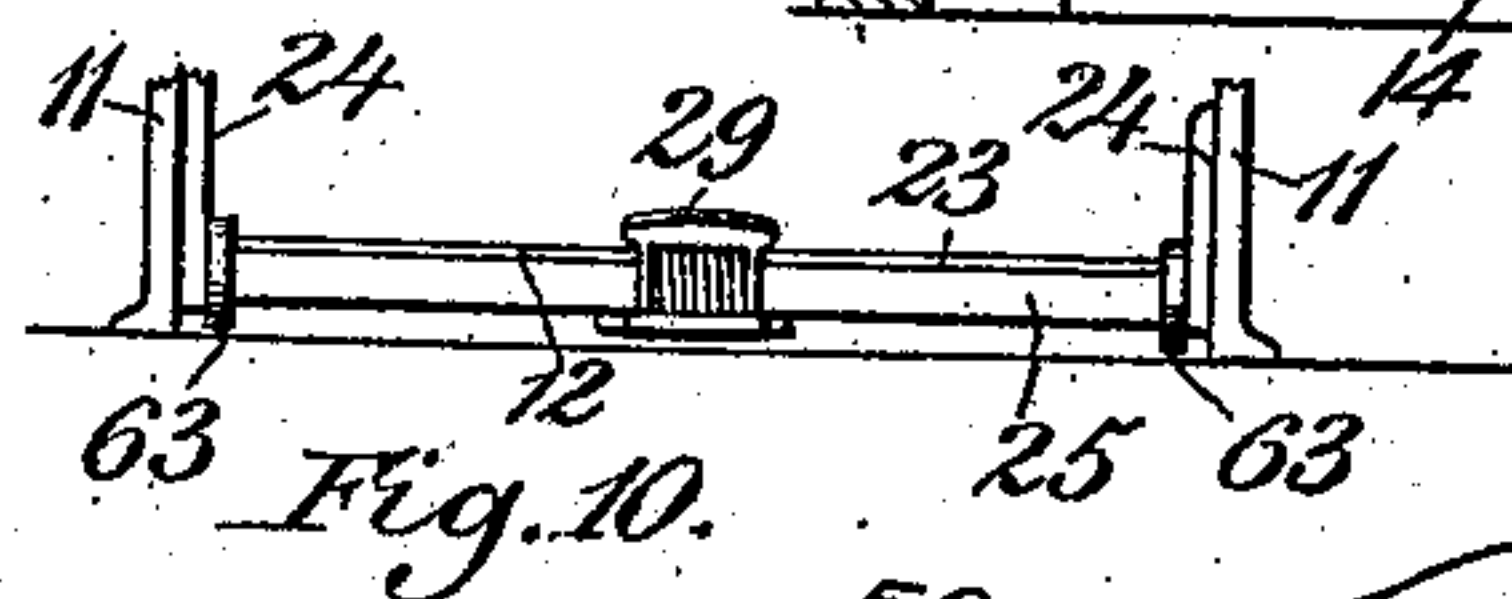
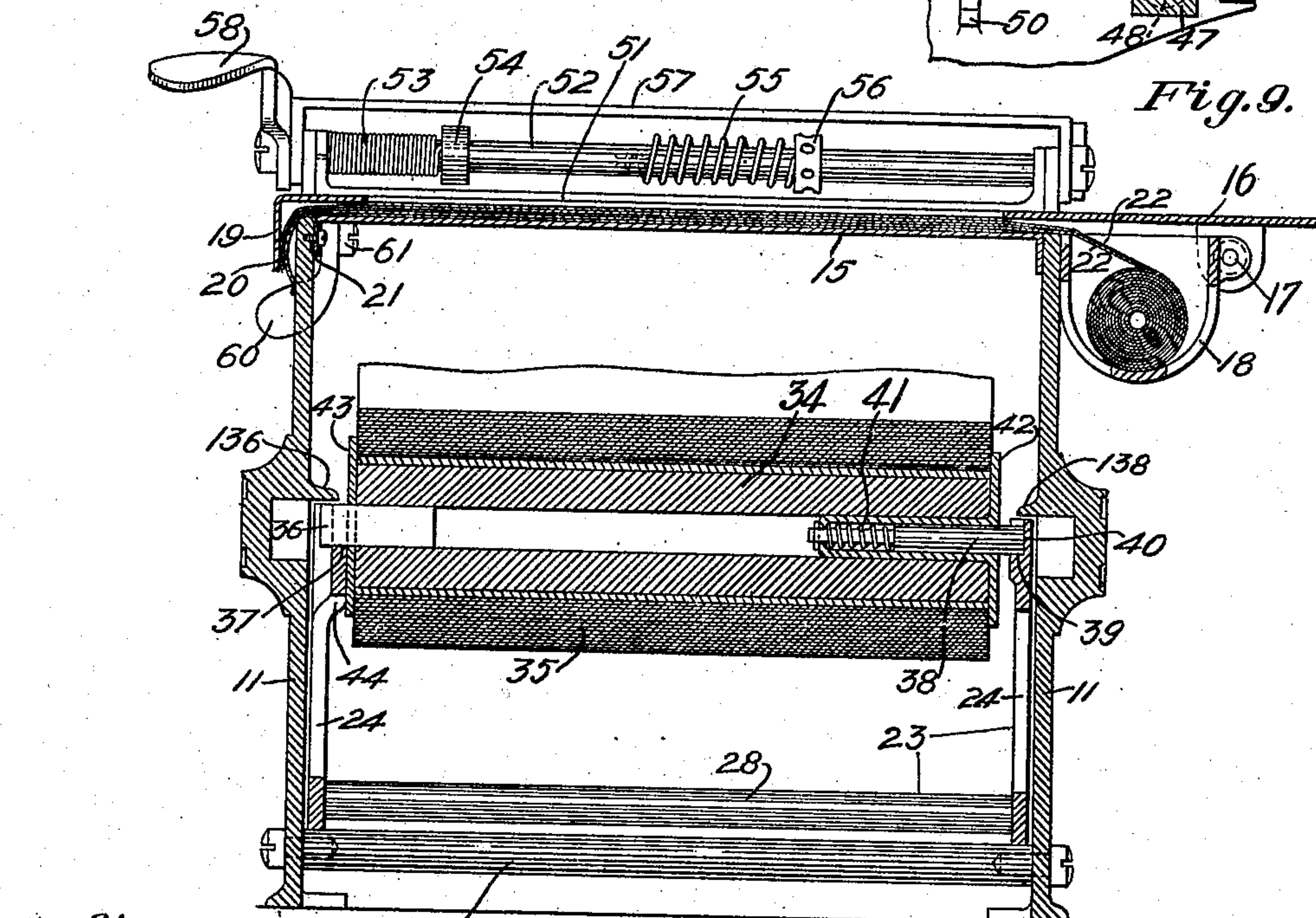
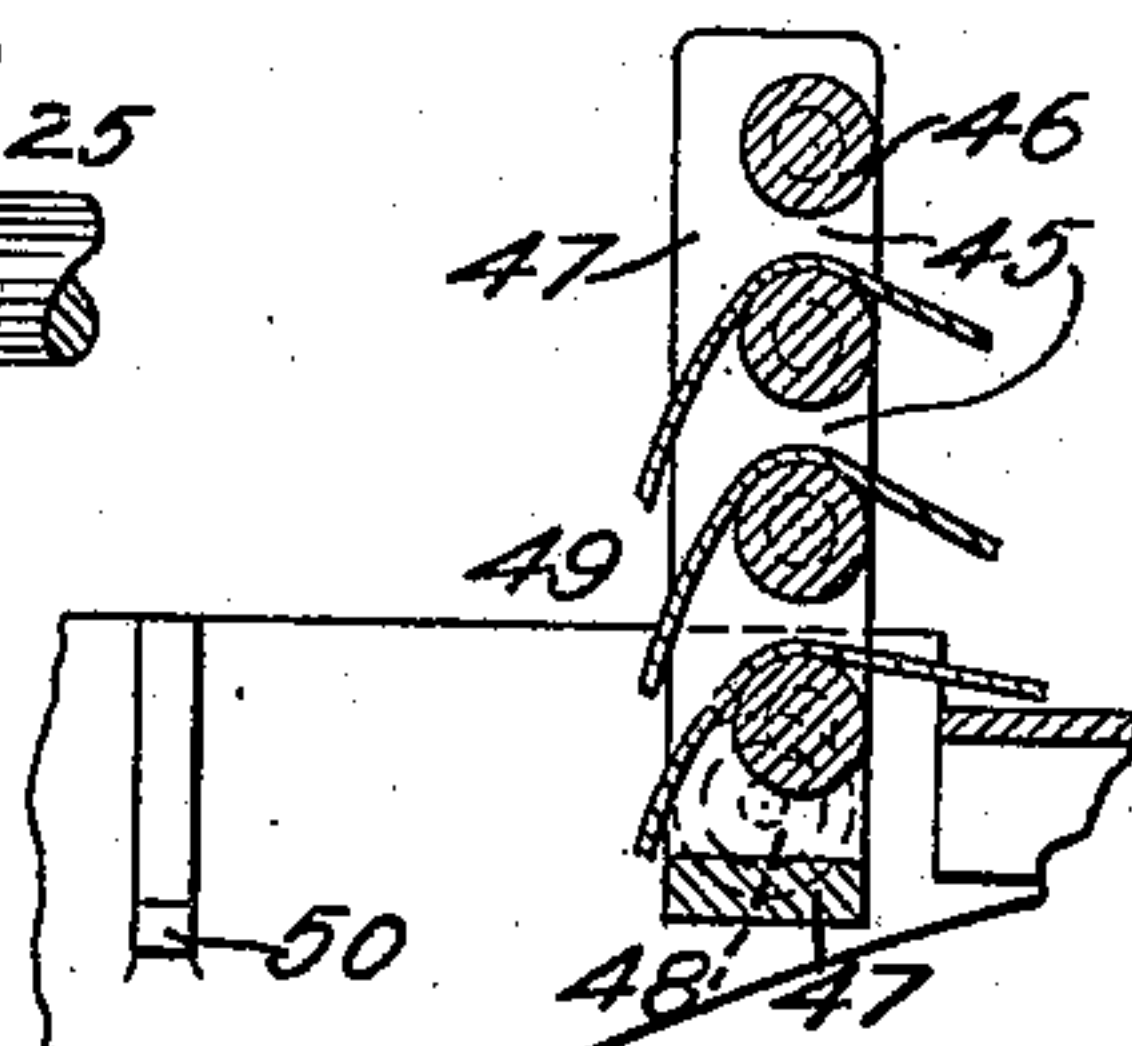
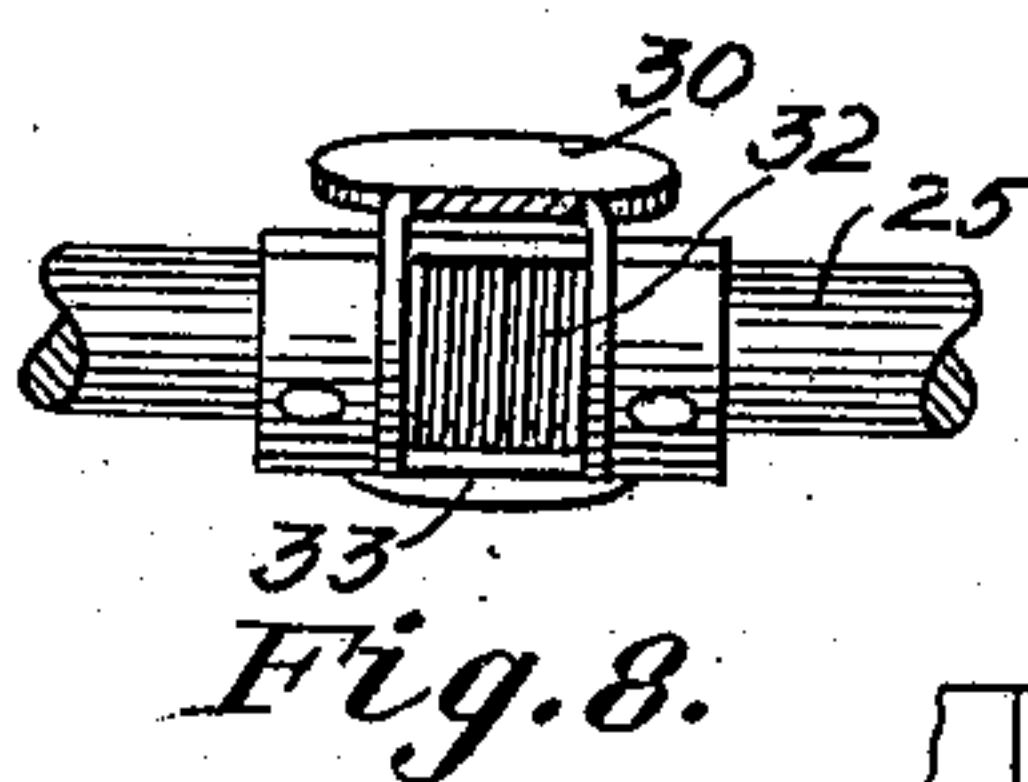
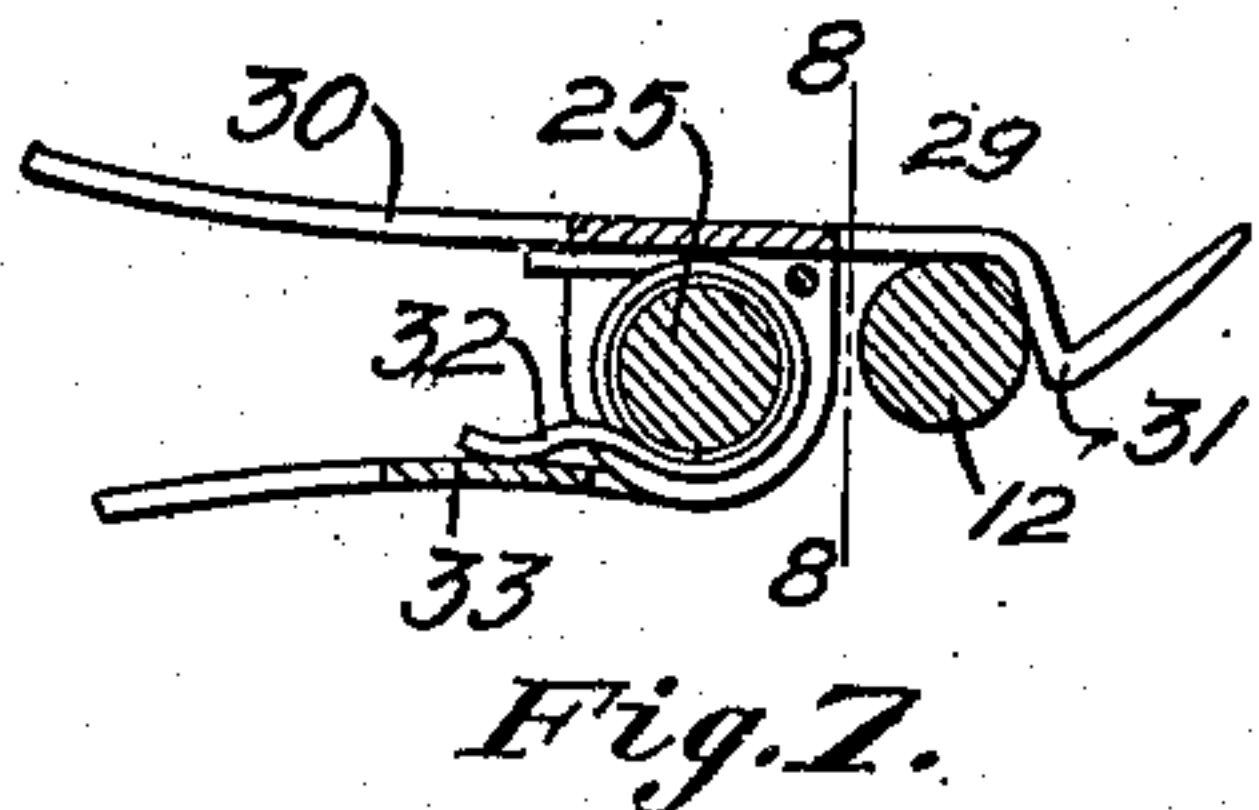
Thomas C. McGeown,
 Charles J. Girding.

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2 SHEETS—SHEET 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS C. McGEOWN, OF EVERETT, MASSACHUSETTS.

AUTOGRAPHIC REGISTER.

No. 923,990.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed December 5, 1907. Serial No. 405,157.

To all whom it may concern:

Be it known that I, THOMAS C. McGEOWN, a citizen of the United States, residing at Everett, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Autographic Registers, of which the following is a specification.

This invention relates to improvements in autographic registers, and the object is first to provide an autographic register so constructed and arranged as to render easy the reloading of the register with paper rolls, second, to provide a simple and easily operated arrangement for holding the paper tearing knife and presser out of operative position, and third, to provide means for holding the carbon sheets between the downwardly turned flange of the margin frame and the casing of the machine so constructed as to accommodate sheets of various numbers and thicknesses.

Other objects and advantages will appear hereinafter.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the appended claims.

Referring to the drawings: Figure 1 is a plan of an autographic register embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a section taken on line 3—3 of Fig. 1. Fig. 4 is an enlarged sectional elevation taken on line 4—4 of Fig. 2, looking toward the right. Fig. 5 is an enlarged detail longitudinal section of the tearing blade, tension device and lever for locking the tension device and tearing blade out of operative position, illustrating the tearing blade raised. Fig. 6 is an enlarged detail longitudinal section of the tearing blade, tension device and lever showing the lever locking the tension device and tearing blade out of operative position. Fig. 7 is an enlarged detail longitudinal section of the latch for locking the secondary frame to the main frame. Fig. 8 is a detail sectional elevation of the same taken on line 8—8 of Fig. 7, looking toward the left. Fig. 9 is an enlarged detail longitudinal vertical section of the paper guide in its raised position. Fig. 10 is a detail elevation of a portion of the machine viewed from the left of Fig. 2, partly broken away to save space.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 10 is the main frame of the register comprising two side members 11,

11 rigidly connected by transverse rods 12, 13 and 14, said side members supporting a writing tablet 15. A margin frame 16 of usual and well known construction is pivoted at 17 on a casing 18 adapted to receive a roll of sheets of carbon paper extending transversely across the writing tablet 15 and between a downwardly turned flange 19 on said margin frame and the member 11 which is adjacent thereto. A spring or springs 20 which may be secured to the left hand member 11 (Fig. 4) by means of a screw or screws 21 extends upwardly, is bent over the upper edge of said member, and extends downwardly between said member and the flange 19, said spring being bowed outwardly toward said flange, whereby carbon sheets 22, 22 of various thicknesses and numbers may be firmly held between said flange and said spring without injury to said sheets. The flange 19 constitutes a tearing knife against which the carbon sheets 22, 22 may be torn off. Located between the side members or walls 11 of the main frame 10 is a secondary frame 23 comprising two side members 24, 24 rigidly connected to each other by rods 25, 26, 27 and 28, said secondary frame being slidably mounted on the rods 12, 13 and 14, whereby said secondary frame may be withdrawn from the main frame 10 for a purpose which will be hereinafter described.

The secondary frame 23 is normally locked to the main frame 10 by means of a latch 29 comprising a lever 30 pivotally mounted on the rod 25 and bent downwardly at 31 to engage the rod 12, said lever being bent upwardly from the point 31 so as to easily pass over the rod 12 when moved toward the right to engage said rod. A torsional spring 32 surrounding the rod 25 bears at one end against the lever 30 and at its other end against an arm 33 rigidly secured to the rod 25. When it is desired to release and remove the secondary frame 23 from the main frame 10, the forefinger is placed beneath the arm 33, the thumb is placed on the left hand end of the lever or latch 30 and by pressing downwardly said lever is released from the rod 12, thereby permitting the withdrawal of the secondary frame 23. Mounted on the secondary frame 23 is a plurality of cores or mandrels 34 on which are supported rolls of paper 35. On the cores 34 are projections or pins 36 journaled in bearings 37 formed in the left hand side member 24 (Fig. 4), said bearings being open at the

top. Projections 136 formed on the left hand side member 11 (Fig. 4) normally prevent the pins 36 from coming out of their bearings 37. Slidably mounted in the other ends of the cores 34 are pins 38 journaled in bearings 39 formed in the right hand side member 24, the ends of said pins being pressed against said member at 40 by means of springs 41. To prevent the pins 38 from becoming dislodged from their bearings 39, I provide the right hand side member 11 with projections 138 located above said pins. The pins 36 are of greater diameter than the pins 38 so that it is impossible for one to make a mistake by inserting the core 34 into the frame 23 in the wrong manner as by inserting the pins 36 in the bearings 39. This is obviously important where there is printed matter on the rolls of paper.

On the right hand ends of the cores 34 are flanges 42 which prevent the rolls of paper 35 from moving toward the right thereon and on the left hand ends of said cores are washers 43 which prevent movement of said rolls toward the left on said cores. It will be seen that the springs 41 act to press the washer 43 against bosses 44 formed on the left hand member 24, the whole device thus constituting a frictional device which prevents the paper on said rolls from unwinding too easily. The paper from the rolls 35 leads in general direction upwardly through spaces 45 located between rolls 46 journaled on a frame 47 pivoted at 48 on the side members 11, said frame and said rolls constituting a guide 49. Normally the guide 49 is located in position in Fig. 3, the left hand end of said guide resting on lugs or supports 50 on the side members 11. When the machine is to be replenished with new rolls of paper, the guide 49 is rocked upwardly on its pivot 48 into the position shown in Fig. 9, thereby making it easy to thread the sheets of paper through the spaces 45 between the rolls 46 and after said sheets have been passed there-through, said guide is returned to its normal horizontal position.

The strips of paper extend from the guide 49 toward the right (Figs. 1, 2 and 3) one of them between the two carbon sheets 22, one below the lowermost of said carbon sheets, and one above the uppermost of said carbon sheets in a usual and well known manner, said strips of paper extending beneath a tension device 51 pivotally mounted on a rod 52 extending transversely of and rigidly secured to the frame 10. A torsional spring 53 surrounding the rod 52 is fast at one end to the tension device 51 and at its other end to a collar 54 fast to said rod. A torsional spring 55 also surrounding the rod 52 is connected at one end to a collar 56 fast to said rod and at its other end to a tearing blade 57 pivotally mounted on said rod. An operating arm 58 fast to the tearing blade 57 is

provided to rock said tearing blade out of operative position with relation to the sheets of paper and the tablet 15. By thus raising the tearing blade 57 by pressing downwardly on the arm 58, the operator is enabled to grasp the right hand ends of the strips of paper at their central portion where the tablet 15 is provided with the customary notch 59. When the strips have been drawn out the proper distance the arm 58 is released and the tearing blade 57 is allowed to press said strips downwardly against the tablet 15, whereupon the operator grasps the free ends of said strips and with an upward and transverse movement tears them off against the tearing blade 57 in the usual manner. In order to move the tension device 51 and tearing blade 57 upwardly out of operative position, I provide a lever 60 pivoted at 61 on the frame 10, said lever being provided with a cam surface 62 so that when said lever is rocked into the position shown in Fig. 6, said cam surface strikes the tension device 51, lifts said tension device and said tension device in turn strikes the tearing blade 57, lifts said tearing blade and said tension device and said tearing blade are thus locked in their raised inoperative position.

By interposing the tension device 51 between the lever 60 and the tearing blade 57 a far more simple and durable arrangement is provided than has heretofore been employed for raising and locking the tension device and tearing blade out of operative position. When the register is to be reloaded with new rolls of paper the margin frame 16 is first raised, the tension device 51 and tearing blade 57 are then locked in their inoperative position just as described, the lever 60 is pressed downwardly thus unlocking the secondary frame 23 from the main frame 10 and said secondary frame is then withdrawn from said main frame toward the left, Figs. 1, 2 and 3.

On the rod 25 are journaled rollers 63 which are adapted to roll on the counter, table or other support upon which the register is located, said rollers supporting the left hand end of the secondary frame 23 as it is being withdrawn and also preventing said frame from scratching the counter or table. As the secondary frame 23 is withdrawn from the main frame 10, the pins 36 and 38 pass from under the projections 136 and 138 and when said secondary frame is entirely withdrawn the cores 34 may then be lifted out of their bearings 37 and 39. The washers 43 are then removed and rolls of paper are placed upon the cores 34, said washers being then replaced. The cores 34 with the rolls of paper thereon are introduced into their places in the frame 23 one by one by placing the pins 36 in their bearings 37, pressing the pins 38 inwardly against the tension of the

springs 41 and dropping the pins 38 into their bearings 39. The rolls of paper now being in place, the guide 49 is swung into its vertical position as shown in Fig. 9, the free ends of the strips of paper are threaded through the spaces 45 between the rolls 46 and are properly arranged with relation to the carbon sheets 22. It will be seen that the operation of threading the strips of paper through the guide 49 is greatly facilitated by reason of the fact that said guide is arranged to be moved into a vertical position with the spaces 45 above the plane of the writing tablet 15. The guide 49 is then returned to its normal horizontal position, as shown in Fig. 3. The secondary frame 23 is then returned to its normal position in the frame 10 and locked therein by means of the latch 29.

When the free ends of the strips of paper have been properly adjusted with relation to the edge of the tearing blade 57, the tension device 51 and tearing blade 57 are then unlocked by rocking the lever 60 on its pivot, said tension device and said tearing blade then assuming the position shown in Fig. 3 with their respective springs pressing them down against the strips of paper. The margin frame 16 is then lowered into its normal position and the machine is then ready for use.

Having thus described my invention, what I claim and desire by Letters Patent to secure is:

1. In an autographic register, a main frame comprising an upright support, a tablet mounted on said support, a secondary frame removably mounted beneath said tablet and adapted to support a strip of paper, the free end of said paper extending across said tablet, and a roll journaled on said secondary frame and adapted to support said secondary frame when the same is withdrawn from its normal position with relation to said main frame.

2. In an autographic register, a main frame comprising two upright supporting members, a tablet supported on said members, a secondary frame removably mounted between said members and below said tablet and adapted to support a strip of paper, the free end of said paper extending across said tablet, and a roll journaled on said secondary frame and adapted to support said secondary frame when the same is withdrawn from its normal position with relation to said main frame.

3. In an autographic register, a main frame comprising two upright walls extending longitudinally thereof, a tablet supported on said walls, a secondary frame removably mounted beneath said tablet and between said walls and adapted to support a strip of paper, the free end of said paper extending across said tablet, and a pair of rolls journaled on said secondary frame and adapted

to support said secondary frame when the same is withdrawn from its normal position with relation to said main frame.

4. In an autographic register, a main frame comprising two upright members, a tablet supported on said members, a secondary frame removably mounted beneath said tablet and between said members, bearings on said secondary frame, a core journaled in said bearings and adapted to support a roll of paper, the free end of said paper extending across said tablet, and means on said main frame adapted to normally prevent said core from becoming detached from said bearings.

5. In an autographic register, a main frame comprising two upright members, a tablet supported on said members, a secondary frame removably mounted beneath said tablet and between said members, bearings on said secondary frame, a core journaled in said bearings and adapted to receive a roll of paper, and projections on said main frame located above said core adjacent to the ends thereof.

6. In an autographic register, a tablet, a frame adapted to support a strip of paper beneath said tablet, a pivoted guide having an opening through which said paper is adapted to extend upwardly, the free end of said paper extending across said tablet, said guide being adapted to be swung into position with said opening located above the plane of said tablet, and means to normally hold said guide in position with said opening below the plane of said tablet.

7. In an autographic register, a tablet adapted to support a strip of paper, a tearing blade, a spring adapted to normally hold said tearing blade in contact with said paper, a tension device adapted to act on said strip, and means to render said tension device inoperative, said tension device being operatively located between said means and said tearing blade and adapted to be actuated by said means to move said tearing blade out of contact with said paper.

8. In an autographic register, a tablet adapted to support a strip of paper, a tearing blade, a tension device adapted to act on said strip and adapted to be moved into contact with said tearing blade, and means to render said tension device inoperative, said tension device being operatively located between said means and said tearing blade, whereby when said tension device is rendered inoperative the same is adapted to engage and move said tearing blade out of operative position.

9. In an autographic register, a tablet adapted to support a strip of paper, a tearing blade, a tension device adapted to act on said strip and adapted to be moved into contact with said tearing blade, and a lever adapted to render said tension blade, and a lever adapted to render said tension device

inoperative, said tension device being operatively located between said lever and said tearing blade, whereby when said tension device is rendered inoperative the same is adapted to move said tearing blade out of operative position.

10. In an autographic register, a tablet adapted to support a strip of paper, a tearing blade, a tension device adapted to act on said strip, and means to move and lock said tension device out of operative position, said tension device being operatively located between said means and said tearing blade, whereby when said tension device is moved and locked the same is adapted to move and lock said tearing blade out of operative position.

11. In an autographic register, a tablet adapted to support a strip of paper, a tearing blade, a tension device acting on said strip and adapted to be moved into contact with said tearing blade, and a lever adapted to engage and render said tension device inoperative, said tension device being operatively located between said lever and said tearing blade, whereby when said tension device is rendered inoperative the same is adapted to move said tearing blade out of operative position.

12. In an autographic register, a casing,

a tablet adapted to support a sheet of paper, a margin frame extending over said tablet and provided with a downwardly extending flange, and a spring located between said flange and said casing, whereby sheets of different thicknesses and numbers may be held between said flange and said frame.

13. In an autographic register, a casing, a tablet adapted to support a sheet of paper, a margin frame extending over said tablet and provided with a downwardly extending flange, and a spring located between said flange and said casing and fast to said casing, whereby sheets of different thicknesses and numbers may be held between said flange and said frame.

14. In an autographic register, a tablet adapted to support a sheet of paper, a mandrel upon which a roll of paper may be placed, and a frame provided with slots in which the ends of said mandrel are detachably located, one of said ends being of greater diameter than the other.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

THOMAS C. McGEOWN.

Witnesses:

LOUIS A. JONES,
SADIE V. McCARTHY.