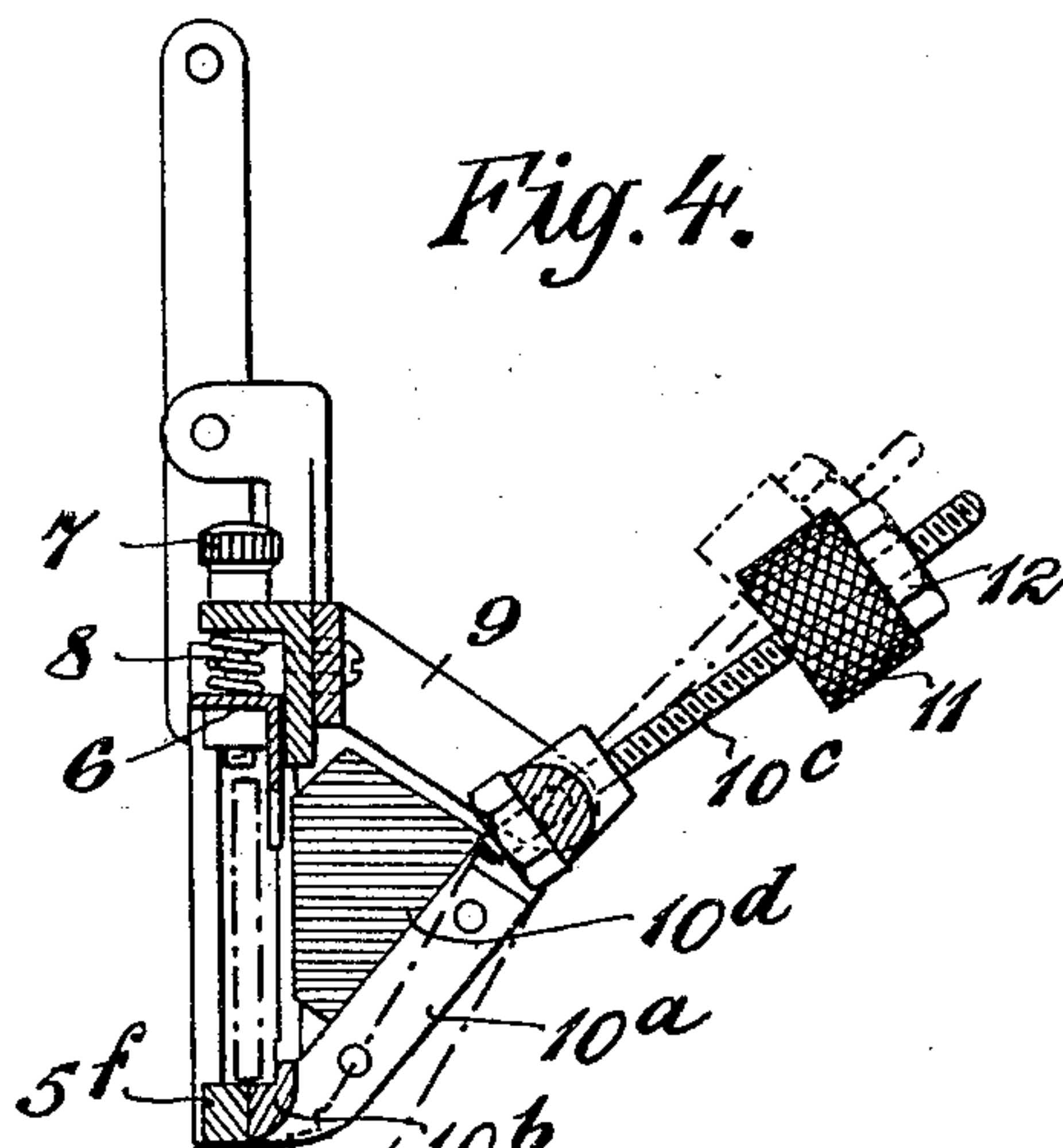
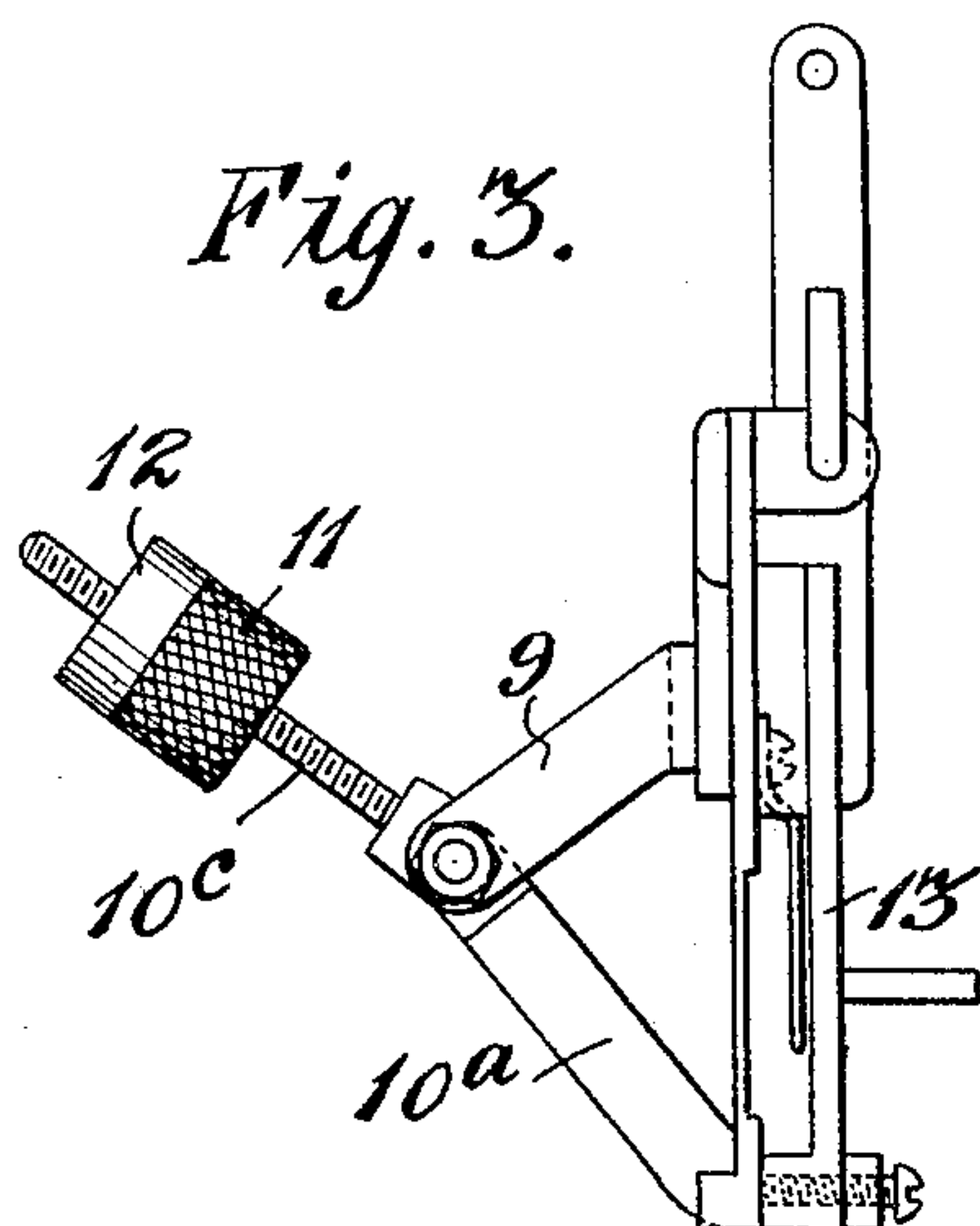
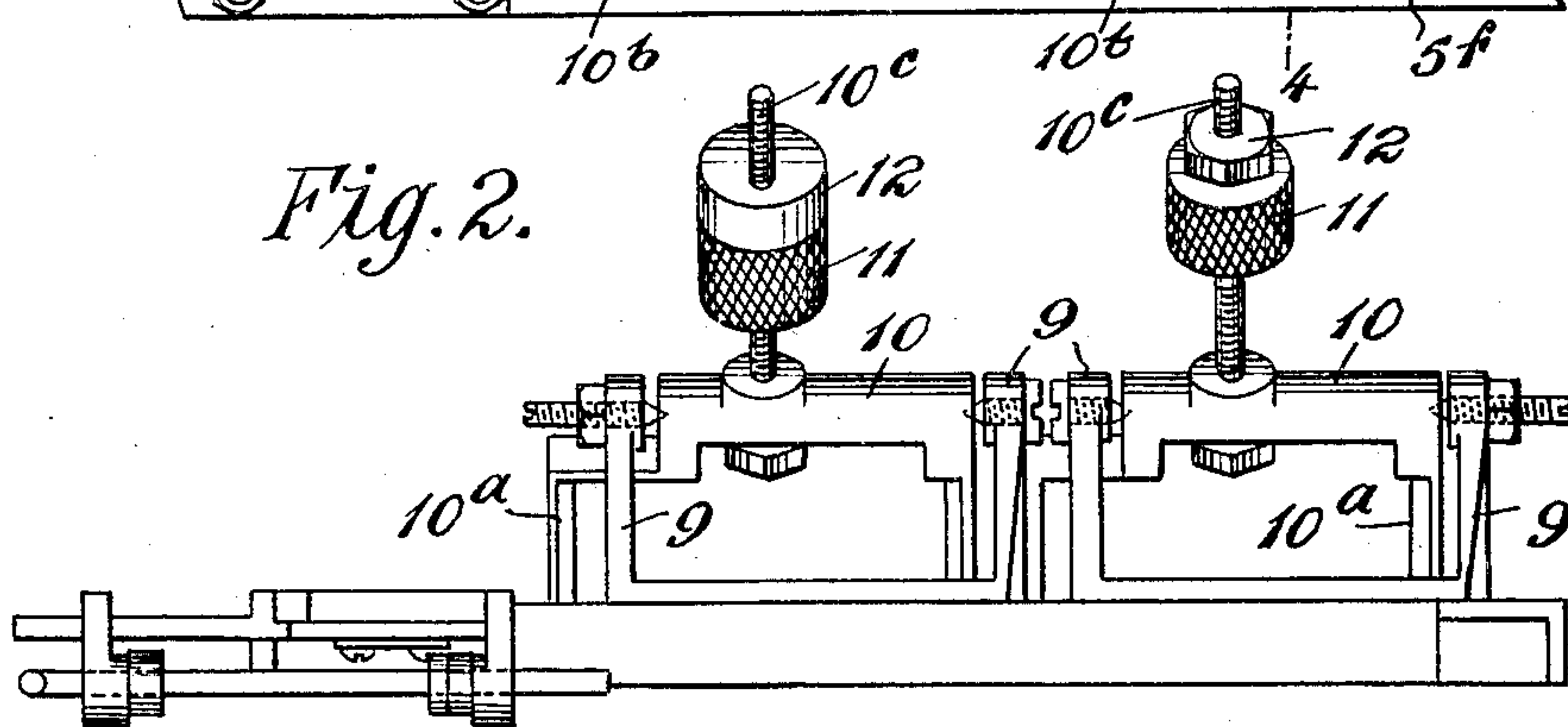
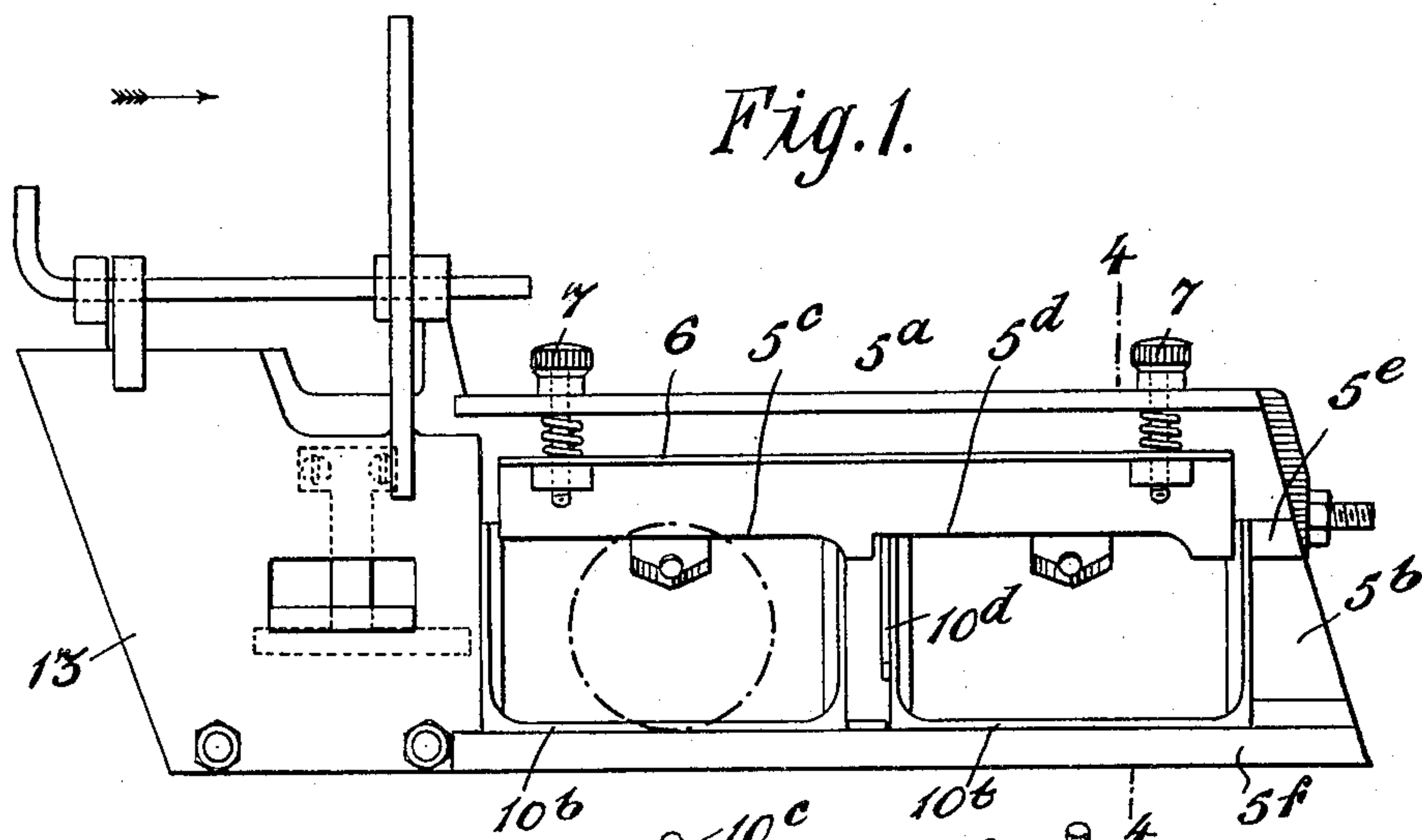


Feb. 14, 1933.

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COIN TESTING DEVICE FOR USE MORE PARTICULARLY
WITH COIN FREED VENDING MACHINES
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COIN TESTING DEVICE FOR USE MORE PARTICULARLY WITH COIN FREED VENDING MACHINES

Application filed June 13, 1931, Serial No. 544,105, and in Great Britain July 12, 1930.

This invention has reference to improvements in or relating to coin testing devices for use more particularly with coin freed vending machines and has for its object the provision of an improved coin testing device which is extremely sensitive in operation and which ensures that only coins of the correct weight and size shall be accepted by the machine.

The invention consists of an improved coin testing device for use more particularly with coin freed vending machines and is characterized in that the coins, subsequent to insertion in the coin slot, pass along a track or chute provided in its length with a gauge or gauges which are set so that any undersized coins are rejected, said gauge or gauges operating in conjunction with a lever or levers a portion or portions whereof constitute a part of the track or chute or which support a member or members which form a part of the said track or chute, the said lever or levers being counterbalanced so as to be depressed by coins too heavy or correct in weight whereby correctly weighted and sized coins are separated simultaneously from others which are too heavy, too light or undersized and passed for the operation of the machine.

The invention further resides in the details of construction of the improved coin testing device for use with coin freed vending machines to be described hereinafter.

The invention will now be described with particular reference to the accompanying sheet of drawing which illustrates the invention in its application to a coin testing device for use with coin freed vending machines in which the coins specified for employment with the machines are made of silver.

In the drawing:—

Figure 1 is a front elevation of the coin testing device.

Figure 2 is a plan of Figure 1.

Figure 3 is an end view of Figure 1 looking

ing in the direction of the arrow in the said figure, and

Figure 4 is a transverse vertical sectional view taken on the plane indicated by the line 4—4 Figure 1 looking in the opposite direction to the arrow in the said figure.

In the drawing like numerals of reference indicate similar parts in the several views.

The machine in connection with which the coin testing device now to be described is employed, is provided with a coin slot (not shown) embodying known means for rejecting discs made of para-magnetic materials or of substances or materials softer than the prescribed silver coins. This coin slot communicates with a coin track or chute which is provided in its length with a portion 5^a of a substantially channel shape in cross-section, the said portion being supported from the machine so that it is inclined both in a longitudinal and in a transverse direction with the connecting web 5^b on the underside. The aforesaid connecting web 5^b is provided in its length with two adjacent cut-away sections 5^c, 5^d of a rectangular shape having adj-justably mounted in the upper portions thereof a gauge plate 6 of an angle shape in cross-section the outer edges of the outwardly projecting limbs whereof are disposed in the same plane as a projection 5^e on the upper surface of the connecting web 5^b.

The height of the gauge plate 6 relatively to the upper face of the lower flange 5^f of the aforesaid intermediate portion 5^a of the chute is capable of being adjusted by means of screws 7 which pass through holes in the horizontal limbs of the gauge plate 6 and engage within correspondingly tapped holes in the upper limbs of the track or chute. Concentrically disposed about the shanks of the screws 7 and interposed between the adjacent faces of the upper limbs of the intermediate portion 5^a of the track or chute and the horizontal limbs of the gauge plates are coil springs 8.

Pivotaly mounted in brackets 9 supported from the intermediate portion of the track or chute and symmetrically disposed relatively to the aforesaid cut-away sections 5^c and 5^d are a pair of lever members 10 the one arm 10^a of each of which is downwardly inclined and of a substantially rectangular skeleton formation. The front side of the gapped arms 10^a of the lever members 10 are adapted normally to rest with their upper surfaces in the same plane as the upper surface of the lower flange of the aforesaid track or chute portion 5^a so that the upper surfaces of the said front sides of the arms 10^a constitute a continuation of the track or chute along which the inserted coins must pass.

The front side of the gapped arms of the lever members are provided adjacent their rear edges with a relatively short upstanding flange 10^b as and for a purpose to be set forth hereinafter.

The other arms of the lever members are constituted by screwed rods 10^c on which are adjustably mounted counter weights 11, locking nuts 12 being provided for maintaining the said counter weights 11 in any set position.

The lower lever member 10 is provided at its upper end with a transversely disposed plate 10^d which prevents coins from falling through the cut-away portion 5^c and jamming the lower lever member and from falling through the cut-away portion in the lower lever member and jamming the upper lever member.

Adjacent to its upper end the coin chute embodies a pivotal flap 13 which is capable of being rocked for permitting of the dislodgment of any rubbish which may become inserted in the chute in known manner.

The operation of the testing device is as follows:—

The counter weight 11 on the higher lever member 10 is adjusted initially so that its gapped arm 10 will be depressed by coins heavier than that of the coin specified for use with the machine, whereas the counter weight 11 on the lower lever member 10 is adjusted initially so that its gapped arm 10^a will be depressed by coins of the specified weight. The gauge plate 6 is then adjusted by means of the screws 7 so that the distance between the under edge of the said plate 6 and the running face of the outer sides of the gapped arms 10^a of the lever members 10 is just less than the diameter of the prescribed coin and hence if a coin is less than the specified size it is not supported by the gauge plate 6 as it passes the cut-away parts of the track or chute and hence falls through one of the gaps in the said arms 10^a into a rejection receptacle.

If a heavy disc of the correct size be passed down the coin chute it effects as it passes over the gapped arm 10^a of the upper lever 10 a depression of the said arm 10^a whereby the

upper portion of the coin falls below the level of the gauge plate 6 and is deflected into the rejection chute in the same manner as a coin of too small a size. If the coin is of the correct weight it passes over the gapped arm of the first lever member 10 without effecting any depression thereof and on to the front side of the gapped arm 10^a of the second lever member 10 when it effects a depression of the gapped arm 10^a of the said lever member again causing the coin to fall below the level of the gauge plate 6 and hence to be deflected through the gap in the arm 10 of the second lever member 10^a into a chute leading to the operative position of the mechanism. A coin of too light a weight passes over both the gapped arms 10^a of the lever members 10 and is transmitted directly into the rejection receptacle.

The upstanding flanges 10^b adjacent to the rear edges of the front sides of the gapped arms 10^a of the lever members 10 serve to deflect the coins passing through the said sides from the cut-away portions in the coin track or chute when the coins are unsupported at their upper underside portions by the adjacent edge of the gauge plate 6 during their passage over the gapped arms 10^a.

It will be appreciated that with a coin testing device as hereinbefore described only coins of the prescribed size and weight may pass into the machine thereby minimizing the possibility of fraudulent operation.

In addition it will be appreciated that the adjusting means for the gauge plate 6 and for the counterbalancing of the lever members 10 admits of a very sensitive setting of the testing device.

What I claim is:—

A coin testing device for use with coin freed vending machines comprising in combination a chute which is fixed in the machine so that it is inclined both along its longitudinal and transverse axes, an open portion formed in the underside of the chute, a gauging means adjustably mounted relatively to the chute and having the lower edge thereof disposed in front of the aforesaid open portion and with the outer face of the gauging means arranged in the same plane as the face of the chute against which the coins lean and contact with in their travel, a pair of levers pivotaly mounted relatively to the said chute and each having an arm of a skeleton formation arranged in correspondence with the open portion of the chute, longitudinally disposed portions, of the arms of skeleton formation constituting part of the lower surface of the track of the chute, upstanding flanges at the rear ends of the said longitudinally disposed portions and counterbalancing means which normally maintain the track portions of the said arms of the levers in alignment with the remainder of the lower track or chute, the first of the aforesaid levers

being counterbalanced so that it is depressed
by coins too heavy in weight and the second
lever so that it is depressed by coins of the
correct weight, undersized coins or coins
5 which effect the depression of the levers fall-
ing through gaps in the gapped arms of the
levers into receptacles, the falling of the
coins through the said gaps in the gapped
arms of the levers being facilitated by the
10 aforementioned upstanding flanges.

In testimony whereof I have signed my
name to this specification.

ARCHIBALD LEESON.

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