

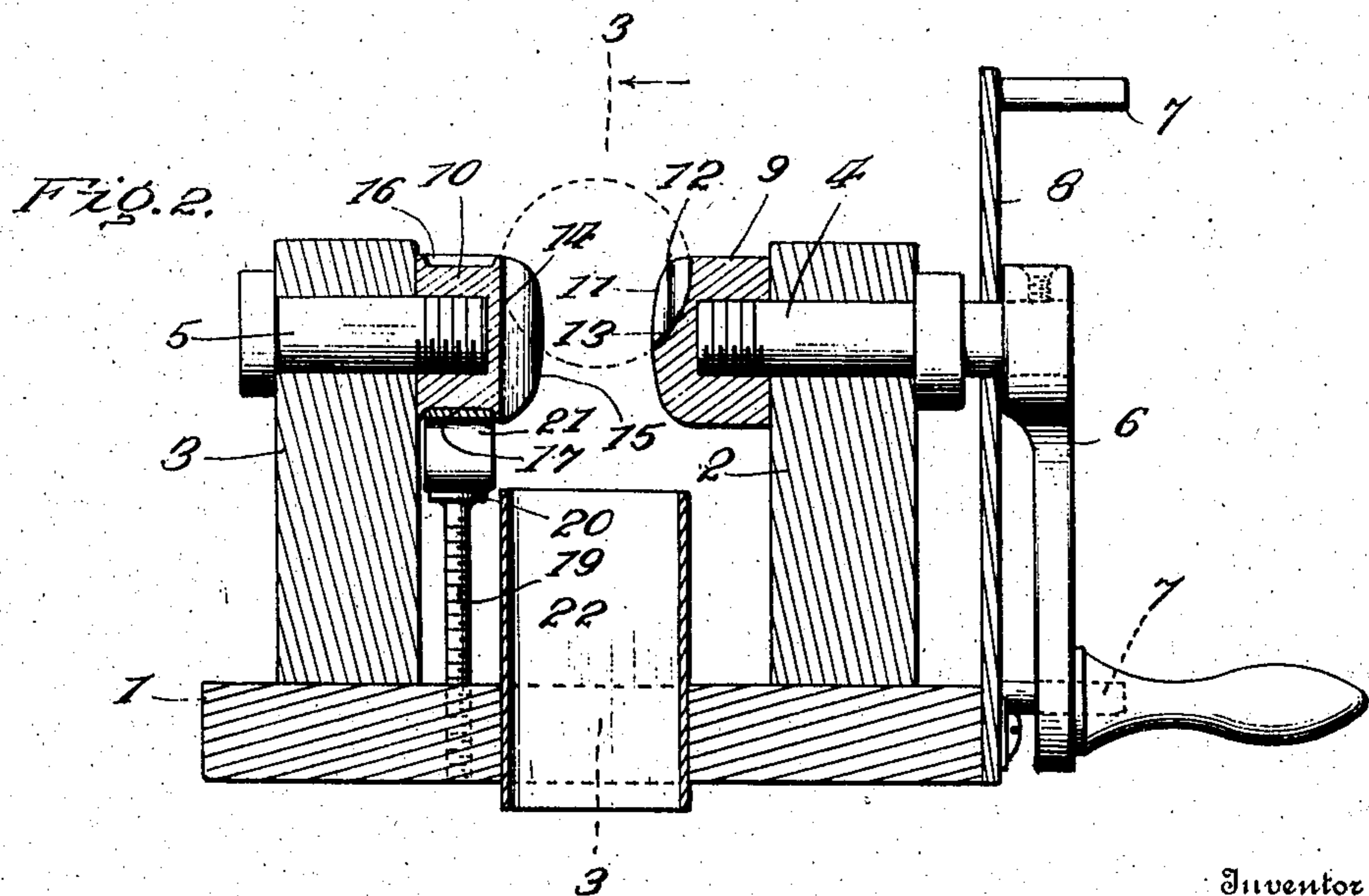
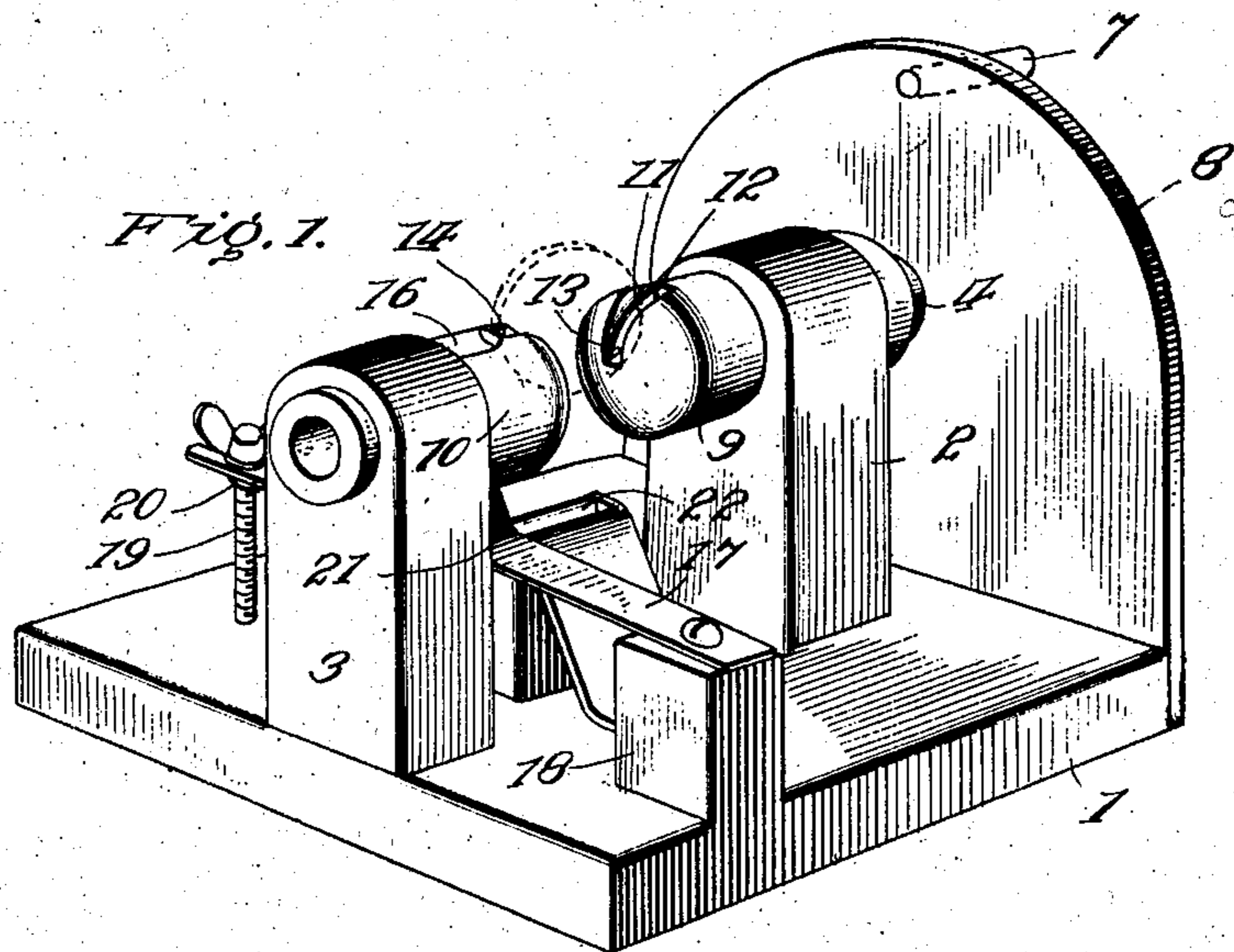
No. 827,327.

PATENTED JULY 31, 1906.

M. D. SADTLER.
COIN TESTER FOR SLOT MACHINES.

APPLICATION FILED MAR. 22, 1905.

2 SHEETS—SHEET 1.



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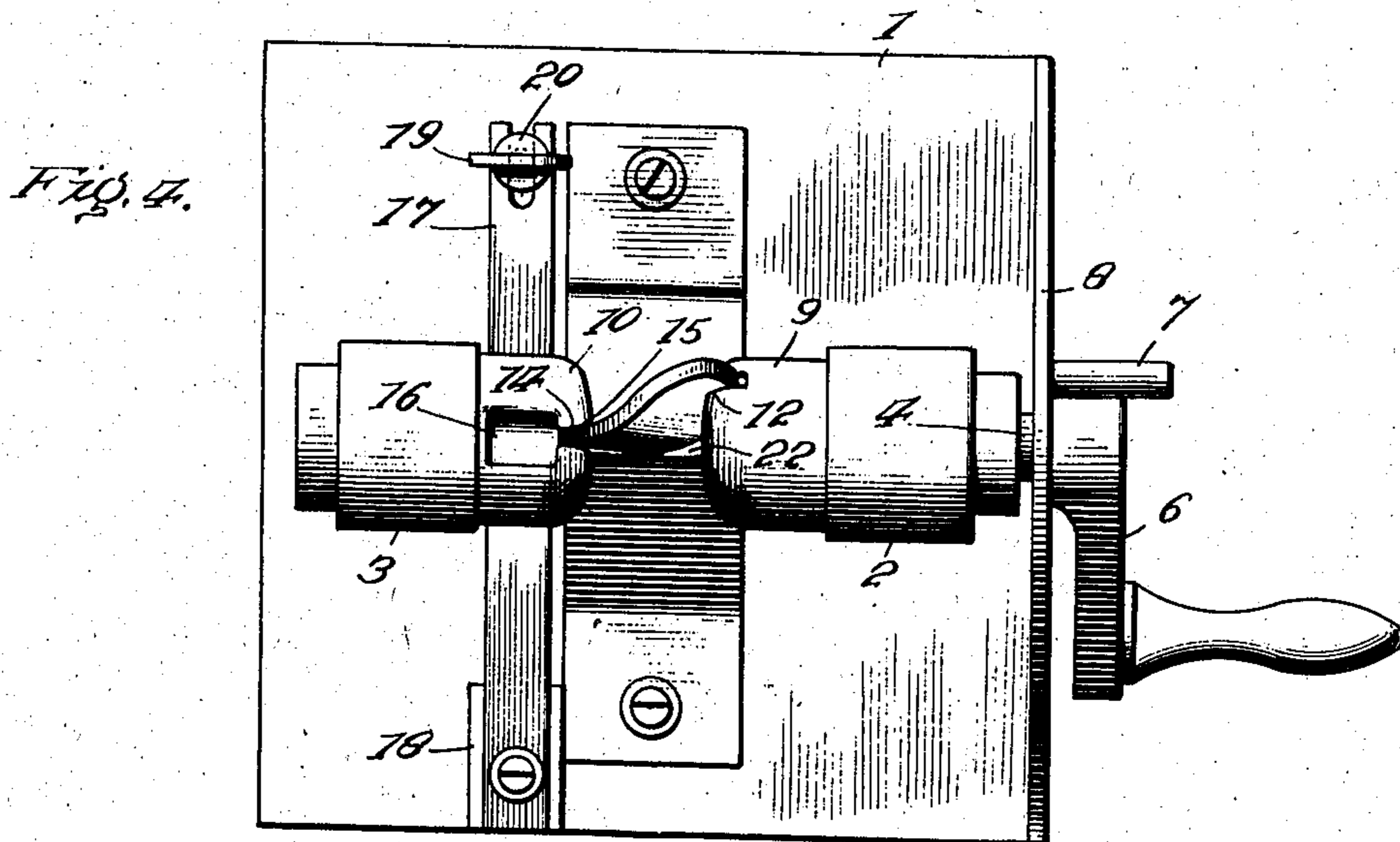
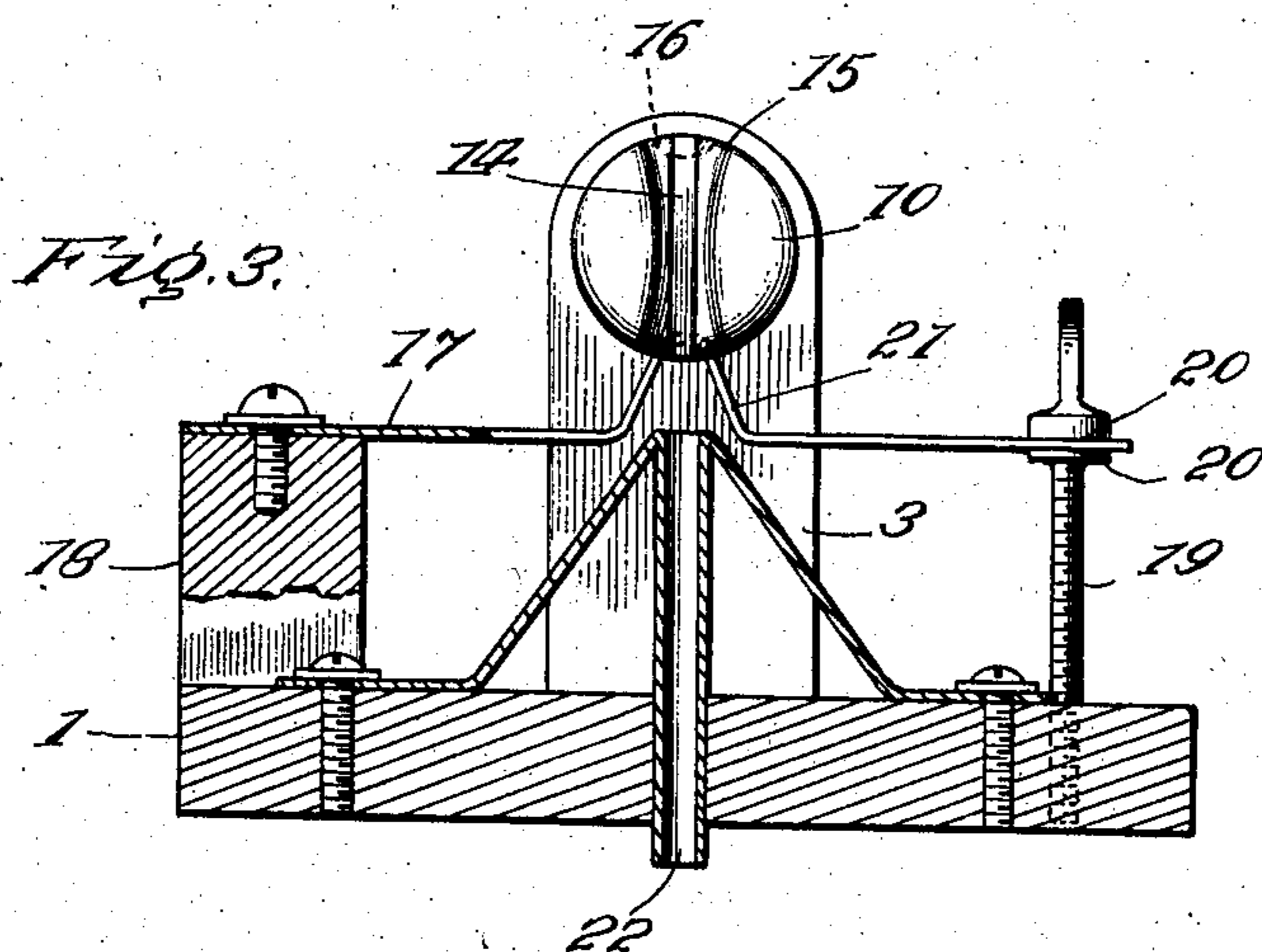
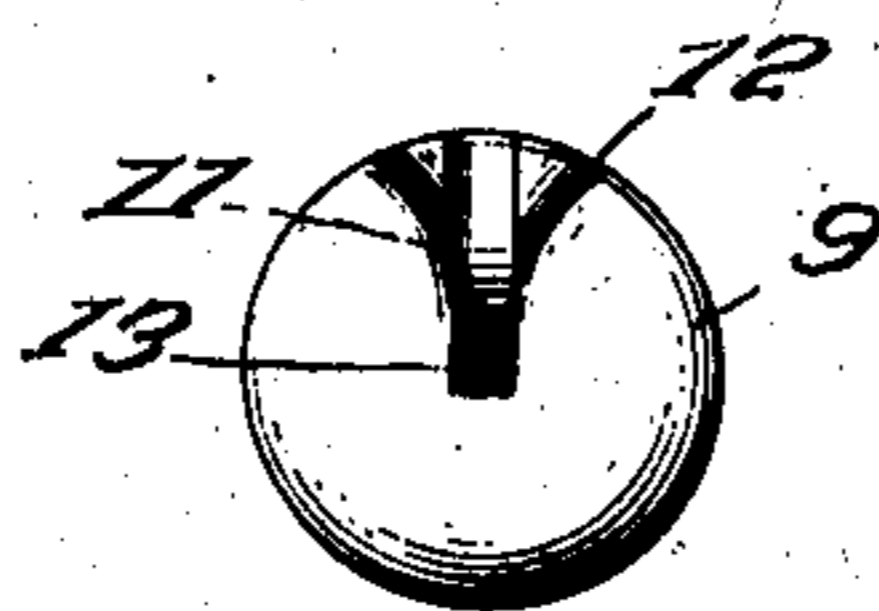


Fig. 5.



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UNITED STATES PATENT OFFICE.

MORGAN D. SADTLER, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO JESSE B. FORRESTER, OF BALTIMORE, MARYLAND.

COIN-TESTER FOR SLOT-MACHINES.

No. 827,327.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed March 22, 1905. Serial No. 251,524.

To all whom it may concern:

Be it known that I, MORGAN D. SADTLER, a citizen of the United States of America, and a resident of Baltimore city and State of Maryland, have invented certain new and useful Improvements in Coin-Testers for Slot-Machines, of which the following is a specification.

My invention relates to certain new and useful improvements in coin-testers adapted to be used in connection with coin-controlled machines of all types.

The object of my invention is to provide a mechanism which will test each coin dropped into the machine, and if it is attempted to operate the machine by what is commonly called a "slug" the mechanism will detect this slug even though it is of the proper diameter, thickness, and weight. By my invention I test each coin presented to the machine, and unless the coin is of the proper size, diameter, thickness, and made of the proper metal the tester will not pass the coin in a manner to operate the coin-actuated mechanism to which the tester is applied.

Referring to the drawings, wherein I show one embodiment of my invention for the purpose of illustrating the same, and wherein the same art is designated by the same reference-numeral wherever it occurs, Figure 1 is a perspective view of the coin-tester with a coin in position to be tested. Fig. 2 is a central longitudinal section of the coin-tester. Fig. 3 is a sectional view taken on line 3 3 of Fig. 2. Fig. 4 is a top plan view of the tester, showing how a slug of lead or other soft metal is bent when placed in the tester. Fig. 5 is a front view of one of the heads, showing the slot therein.

In the embodiment of my invention shown, 1 designates a base portion on which the coin-testing mechanism is mounted.

2 3 are a pair of uprights extending up from the base and provided in their upper ends with bearings for shafts 4 and 5, the shaft 4 being mounted in the bearing of the upright 2 and the shaft 5 being mounted in the bearing of the upright 3. These shafts are in line with each other, with a space between their adjacent ends.

6 is a handle mounted on the outer end of the shaft 4, and 7 7 are stops carried by the plate 8, secured to the base 1, the stops being

adapted to limit the rotation of the crank-handle 6.

Mounted on the adjacent ends of the shafts 4 and 5 are the heads 9 and 10. 11 is a slot cut radially in the head 9 and extending from approximately the center to the periphery of the head. This slot, as is best shown in Fig. 5, has the inner portion of its sides parallel for a portion of the depth, and then the sides are beveled outwardly, as shown at 12, toward the periphery of the head, and the bottom 13 of the slot is inclined outward at the inner end to support a coin, as is shown in Fig. 2. The slot is formed with its side walls flaring toward the periphery, so that the outer edges of the slot are sector-shaped. The walls at the bottom of the slot are, however, parallel for the entire length of the slot. The head 10 is provided with a slot 14, which extends diametrically through the head. The sides of this slot near the bottom are parallel, and then they are beveled above the parallel portion, as shown at 15, the bevel being least at the center of the slot and increasing on each side toward the periphery of the head. These slots 11 and 14 form a pair of jaws into which the coin to be tested is delivered.

16 16 are a pair of notches placed on opposite sides of the head 10 and in line with the slot 14. 17 is a spring secured at one end to a projection 18, mounted on the base 1, the other end of the spring being slotted. 19 is an adjusting-screw tapped into the base 1 and passing through an opening in the end of the spring 17. The screw 19 has projections 20 20, one on each side of the spring, in order that the spring may be moved up or down by the said screw. 21 is a projection which is shown as formed by bending up a portion of the spring, the projection being adapted to engage the depressions 16, formed in the head 10, the spring being adapted to resist the initial turning movement of the head.

Located directly under the slots 11 and 14 is a coin-receiving slot 22, adapted to receive a coin from the slots after the machine has been operated in a manner now to be described.

Supposing the parts to be in position shown in Fig. 1 and a nickel to have been deposited in the slots 11 and 14 of the heads by being guided thereto by suitable runways or in any desired manner. The nickel having been

deposited in the slot, the handle 6 is operated and turned until it strikes the upper stop 7. The turning of the handle will turn the head 9, and the nickel will be clamped between the parallel sides of the slots 11 and 14. The projection 21 on the spring 17, engaging one of the notches 16, will resist the initial turning movement and tend to hold the head 10 from rotating until considerable force has been applied. The metal of which the nickel is made is sufficiently soft to allow the sides of the two slots to grip the metal and at the same time is sufficiently hard to prevent the nickel from being bent. The rotation of the handle 6 will consequently carry the nickel around a half-revolution until the handle comes in contact with the upper stop 7. Just before the handle 6 strikes the stop the projection 21 on the spring 17 will enter the other notch 16 and stop the head 10 with its slot in line with the coin-receiving slot 22. The entrance of the projection 21 into the notch 16 carries the head 10 forward sufficiently to take the tension off the nickel, and consequently as the projection 21 enters the notch 16 the nickel will be released by the head. As the slot in the head 9 will at this time extend downward, the nickel is free to pass into the slot 21. After the nickel is dropped into the slot the handle is released and the weight of the handle is sufficient to return to its normal position in contact with the lower stop 7, with the slot in the head 9 extending upwardly in position to receive the next coin.

If a lead slug of the proper size to enter the slots 11 and 14 were dropped into the coin-tester instead of a nickel and it was attempted to operate the machine, the resistance of the spring 17 would be sufficient to cause the slug to be bent out of shape, as is shown in Fig. 4, the shape of the sides of the slots assisting in this operation, the bending continuing until the slot in the head 9 is revolved sufficiently to cause the slug to become disengaged from the slot, and the slug will then drop out to one side and not pass into the coin-slot 22.

If an iron or steel slug of the proper size be dropped into the machine, the sides of the slots will not take hold of the slug with a sufficient grip to carry the two parts of the head around; but upon the turning of the head 9 the iron slug will spring out of the slots and because of their beveled sides fall to one side of the coin-receiving slot.

If a slug which is larger in diameter than required is dropped into the machine, it will be caught only by the upper edge of the quadrant-groove and when that head is turned will be twisted off its seat in that groove and will not turn the friction-held head. If a slug which is too small be inserted, the same thing will happen, but at the lower end of the quadrant-jaw. If a slug be

of the proper size, but too thin, the vertical sides of the quadrant-jaw will not contact with both sides of the slug, and the lost motion will permit it to twist out. If the slug is too thick, it will not enter the bottom portion of the quadrant-slot and will not be gripped at all and will consequently not turn the other head. If the slug be too soft, it will bend under the friction of the head and be thrown out.

It will thus be seen that I have devised a mechanism which will prevent the passage of anything but a coin of the proper character to operate the machine—that is to say, it will prevent the use of lead or iron slugs, even though they be of the proper size and thickness, the metal of which they are constructed causing the machine to cast them out and prevent them from being passed along into the coin-slot.

While I have described what I believe to be the preferred form of my invention, I desire to have it understood that many changes may be made in the form and construction of the parts and that other elements may be substituted for those here shown and described for the purpose of carrying out the functions of the elements here shown and described without departing from the spirit of my invention and that where in the claims I use the term "means" this term is to be understood as covering all forms of mechanism which are capable of performing the function ascribed to the term in the claims.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a coin-testing machine, the combination with a pair of jaws adapted to hold a coin between them, of means for subjecting one of the jaws to a resistance sufficient to bend anything of less hardness than the coin to be tested and means for moving the jaw not subject to tension, whereby the coin or token will either move the jaw subject to tension or be bent.

2. In a coin-testing machine, the combination of two jaws adapted to hold a coin between them, of means for subjecting one of the jaws to a resistance sufficient to bend anything of less hardness than the coin to be tested and means for turning the jaw not subject to tension, whereby the coin or token will either turn the jaw subject to tension or be bent.

3. In a coin-testing machine, the combination of a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces adapted to receive a coin between them, means for subjecting one of the heads to a resistance sufficient to bend anything of less hardness than the coin to be tested and means for turning the head not subject to tension whereby the coin or token will either turn the head subject to tension or be bent.

4. In a coin-tester, the combination with a pair of jaws spaced apart and adapted to receive a coin between them, the jaws engaging the coin toward its periphery, so as to leave the center portion of the coin unsupported, means for moving one of the jaws and means to resist the initial movement of the other jaw, whereby the jaws will bend a coin held between them if the same is softer than standard.

5. In a coin-tester, the combination with a pair of jaws spaced apart, and adapted to receive a coin between them, the jaws engaging the coin toward its periphery so as to leave the center portion of the coin unsupported, means for rotating one of the jaws and means to resist the initial movement of the other jaw, whereby the jaws will bend a coin held between them if the same is softer than standard.

6. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces adapted to receive a coin between them, said slots engaging the coin toward its periphery so as to leave the center portion of the coin unsupported, means for rotating one of the heads and means to resist the initial movement of the other head, whereby the heads will bend the coin held in the slots if the same is softer than standard.

7. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces adapted to receive and support a coin between them, said slots engaging the coin toward its periphery so as to leave the center portion of the coin unsupported, one of said slots extending only part way across the face of the head, the coin being supported in the slots by its edge resting on the lower edge of said last-mentioned slot, means for rotating one of the heads and means to resist the initial movement of the other head, whereby the heads will bend the coin held between them if the same is softer than standard.

8. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces adapted to receive and support a coin between them, said slots engaging the coin toward its periphery so as to leave the center portion of the coin unsupported, one of the slots extending across the face of its head and the other slot extending only part way across the face of the other head, the coin being supported by its edge resting on the lower edge of said last-mentioned slot, means for rotating one of the heads and means to resist the initial movement of the other head, whereby the heads will bend the coin held between them if the same is softer than standard.

9. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent

faces, said slots having their side walls outwardly beveled and adapted to receive a coin between them, means for rotating one of the heads and means to resist the initial movement of the other head, whereby the heads will tend to bend a coin held between them.

10. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces, one of the slots extending across the face of its head and both slots having their sides outwardly beveled and being adapted to receive a coin between them, means for rotating one of the heads and means to resist the initial movement of the other head, whereby the heads will tend to bend a coin held between them.

11. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces, one of the slots extending only part way across the face of the head and having its side outwardly beveled, the slots being adapted to receive a coin between them, means for rotating one of the heads, and means to resist the initial movement of the other head, whereby the heads will tend to bend a coin held between them.

12. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces, one of the slots extending only part way across the face of one of the heads, said slot being wider toward the periphery of the head, the slots being adapted to receive a coin between them, the coin being supported by its edge resting on the edge of said last-mentioned slot, means for rotating one of the heads and means to resist the initial movement of the other head, whereby the heads will tend to bend a coin held between them.

13. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces, one of the slots extending across the face of its head, the other extending only part way across the face of the other head, said second slot being wider toward the periphery of the head, the slots being adapted to receive a coin between them, the coin being supported by its edge resting on the lower edge of said last-mentioned slot, means for rotating one of the heads and means to resist the initial movement of the other head, whereby the heads will tend to bend a coin held between them.

14. In a coin-tester, the combination with a pair of heads spaced apart, said heads being each provided with a slot in their adjacent faces, one of the slots extending only part way across the face of its head, said slot being formed at its end nearest the center of the head with an outward incline, the slots being adapted to receive a coin between them, the coin being supported by its edge resting on

the incline, means for rotating one of the heads and means to resist the initial movement of the other head, whereby the slots will tend to bend a coin held between them.

5 15. In a coin-testing device, the combination with two heads spaced apart, said heads being each provided with a slot in their adjacent faces, one of said slots being sector shape and located radially of the end of the head
10 and the other slot extending diametrically across the end of its head, the walls of each slot being parallel and at right angles to the bottom of the slot for a short distance and then flared outwardly.

15 16. A coin-testing device, the combination with two heads spaced apart, said heads being each provided with a slot in their adjacent faces, one of said slots extending diametrically across the end of its head, said
20 side walls of the slot being closer together at the bottom of the slot than at the surface of the head.

25 17. In a coin-testing device, the combination with two heads spaced apart, said heads being each provided with a slot in their adjacent

cent faces, the walls of the slots being parallel and at right angles to the bottom of the slot for a short distance and then flared outwardly.

18. In a coin-testing device, the combination with two heads spaced apart, said heads being each provided with a slot in their adjacent faces, one of said slots being sector shape and located radially of the end of its head, the walls of the slot being parallel and at
3 right angles to the bottom of the slot for a short distance and then flared outwardly.

19. In a coin-testing device, the combination with two heads spaced apart, said heads being each provided with a slot in their adjacent faces, the side walls of one of said slots being closer together at the bottom of the slot than at the surface of the head.

Signed by me at Baltimore city and State of Maryland this 15th day of March, 1905.

MORGAN D. SADTLER.

Witnesses:

L. H. LATHAM,
JOHN EMORY CROSS