

(No Model.)

3 Sheets—Sheet 1.

F. MOSSER.

COIN CONTROLLED CIGAR DELIVERING EXERCISING MACHINE.

No. 381,409.

Patented Apr. 17, 1888.

Fig. 1.

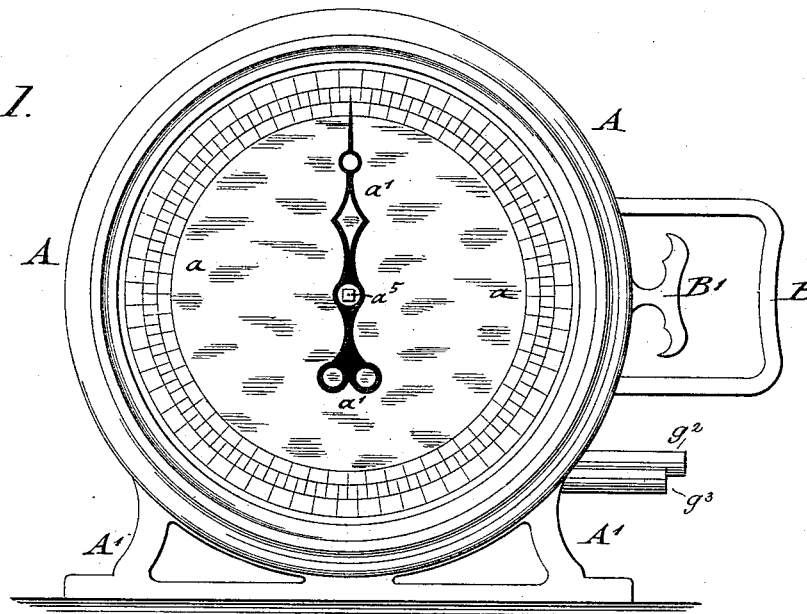
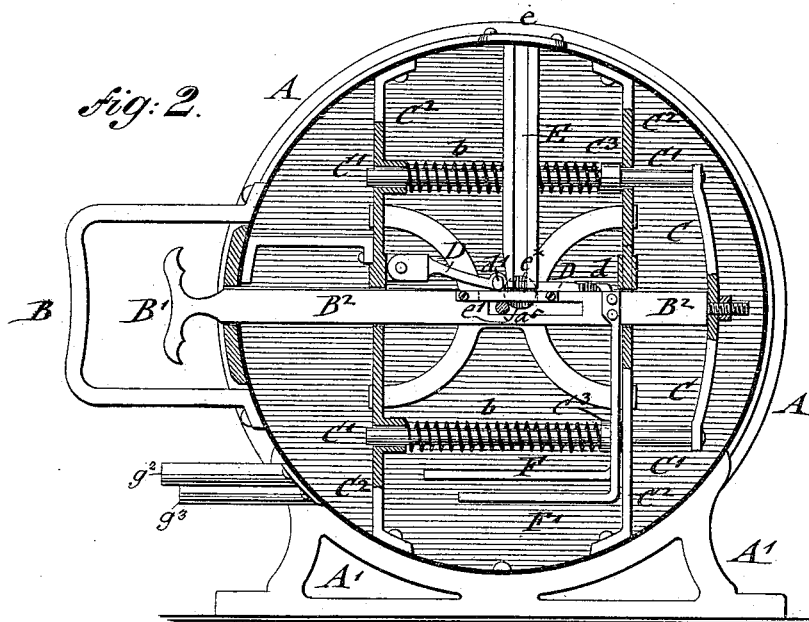


Fig. 2.



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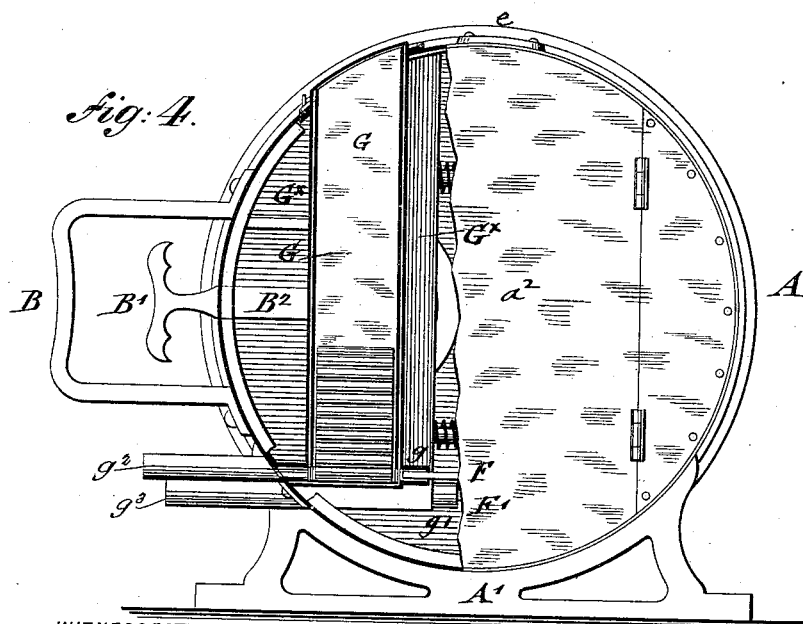
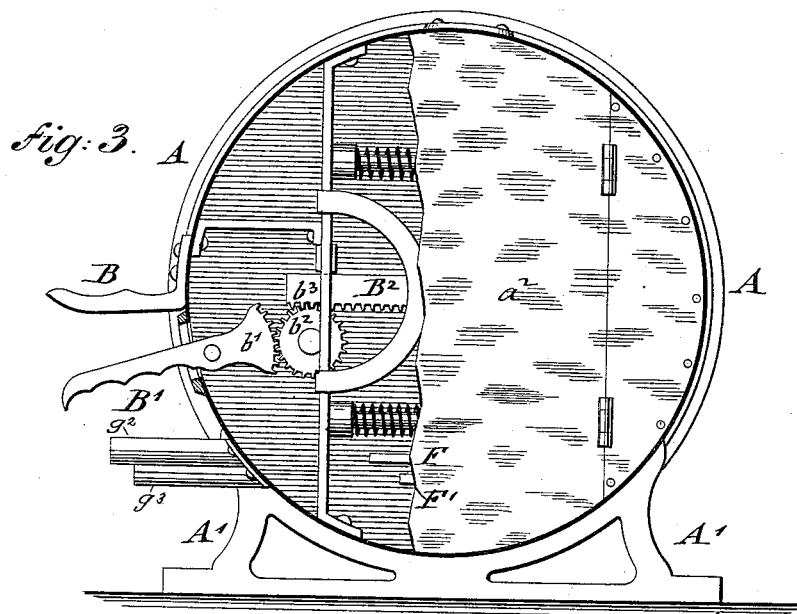
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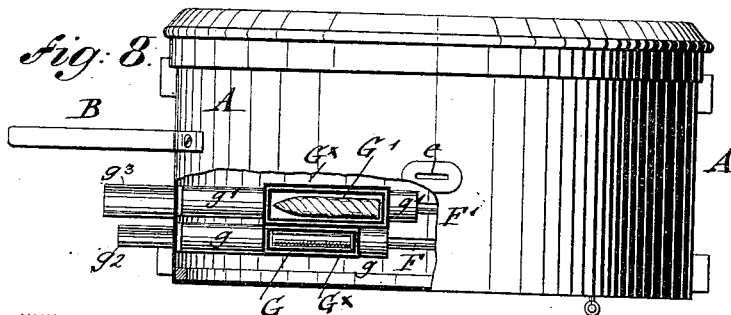
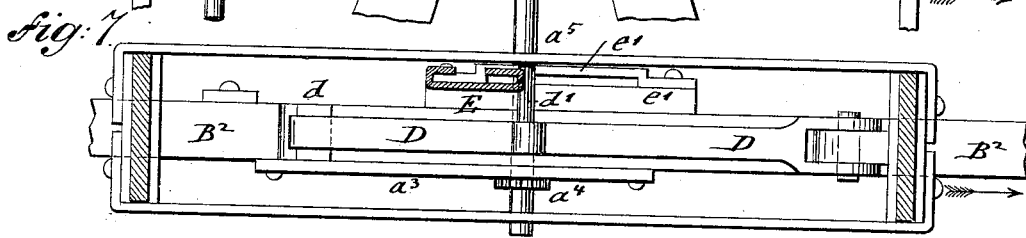
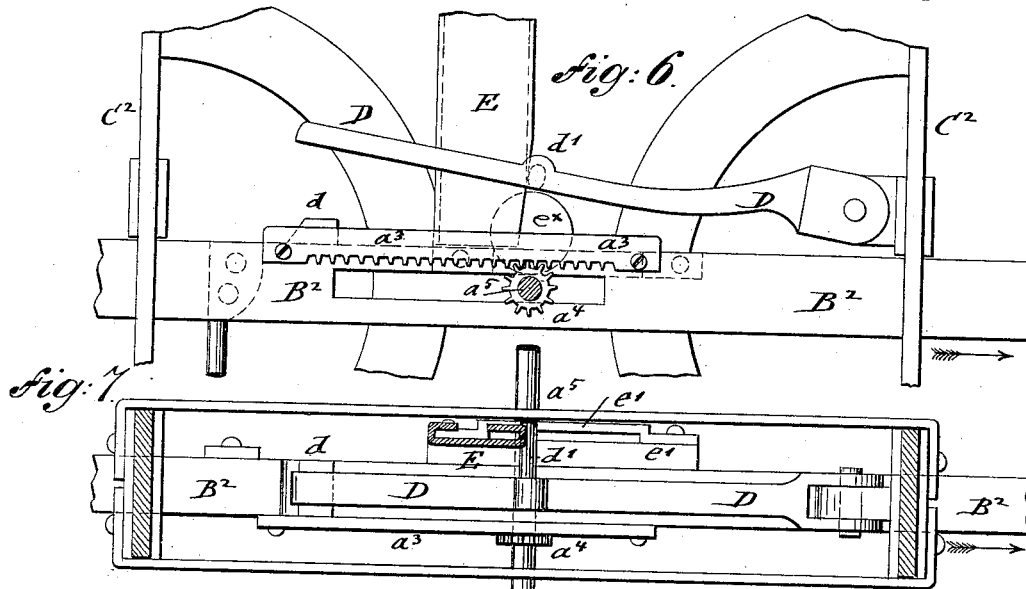
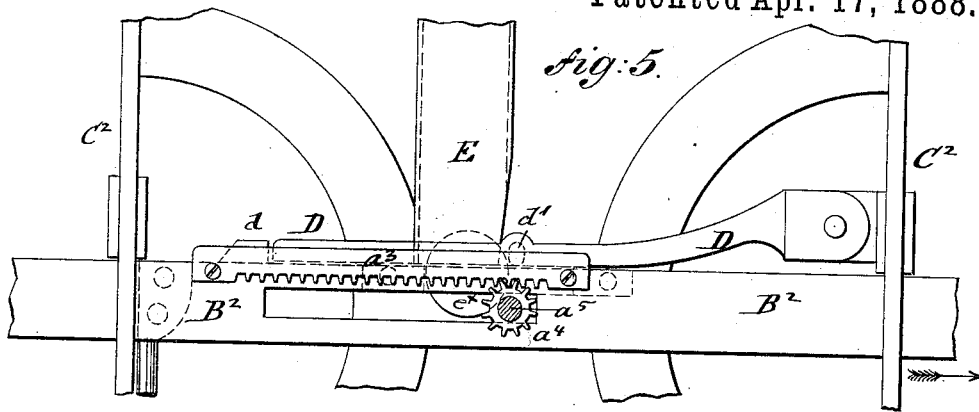
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3 Sheets—Sheet 3.

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UNITED STATES PATENT OFFICE.

FERDINAND MOSSER, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE HAND POWER TEST MACHINE COMPANY, OF NEW JERSEY.

COIN-CONTROLLED CIGAR-DELIVERING EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 381,409, dated April 17, 1888.

Application filed April 7, 1887. Serial No. 233,995. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND MOSSER, of the city, county, and State of New York, have invented certain new and useful Improvements in Exercising-Machines, of which the following is a specification.

This invention has reference to an improved exercising-machine for testing the muscles of the hand; and the invention consists of an exercising-machine the closed casing of which is provided at the outside with a fixed handle and with a movable handle, the latter being connected to a guided and spring-actuated slide-frame, the motion of which is transmitted by a rack and pinion to a pointer and dial, so as to indicate the extent of motion of the movable handle. The movable frame is locked in normal position in the casing by means of a latch that is pivoted to a fixed stop of the casing. The latch is provided with a laterally-extending pin and released when a suitable coin is dropped into a coin-tube at the interior of the casing, the lateral pin of the latch riding on the said coin, so as to lift the same and permit the motion of the spring-actuated handle-frame. The slide-frame is connected with a movable handle and provided with pusher-rods which operate package-delivering devices whenever the locking device on the slide-frame is unlocked by the releasing device, which is permitted to be actuated by the insertion of a coin. A number of storage-receptacles are arranged in the close casing and provided with bottom guide-tubes and exterior delivery-tubes, which tubes are in line with the pusher-rods, so that one or more articles are delivered at the outside, according to the extent to which the slide-frame is moved by the action of the movable handle.

In the accompanying drawings, Figure 1 represents a front elevation of my improved exercising-machine. Fig. 2 is a rear elevation of the same, partly in section, the rear wall of the casing and the storage-receptacles being removed. Fig. 3 is a rear elevation, partly in section, of a modified construction of the machine. Fig. 4 is also a rear elevation, partly in section, showing the storage-receptacles and their connection with the delivery-tubes. Figs. 5, 6, and 7 are details, drawn on a larger scale,

showing front elevations of the locking-latch respectively in locked and in opened position, and a plan, partly in horizontal section, of the locking device; and Fig. 8 is a top view of the machine with a portion of the casing broken away to show the storage-receptacles.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a casing of cylindrical shape, which is provided at the front part with a dial, *a*, and pointer *a'*, and at the rear part with a hinged door, *a''*, which is securely locked in a suitable manner.

The cylindrical casing A is supported on a suitable stand, A', that is rigidly attached to a suitable support, and provided at one side with a fixed handle, B, and a movable handle, B', within the same. The fixed handle B is made either in U shape and rigidly attached at the ends to the side wall of the casing A, as shown in Fig. 2, or it is made in the shape of a plain handle, as shown in Fig. 3. The movable handle B' is connected by a slide-rod, B², with a sliding frame, C, which is guided by rods C' in vertical stays C² of the casing A and acted upon by strong spiral springs *b*, interposed between one of the stays C² and collars C³ on said guide-rods, as shown in Fig. 2; or the movable handle B' may be fulcrumed to the casing and provided at the inner end with a toothed segment, *b'*, which meshes with an intermediate pinion, *b''*, said pinion meshing again with a rack, *b'''*, of the horizontal slide-rod B², by which the connection with the guided and spring-actuated slide-frame C is made, as shown in Fig. 3.

In one case the exercising-machine is operated by placing the palm and thumb of one hand against the fixed U-shaped handle B and grasping the movable handle B' with the fingers, while in the other case the palm and thumb of one hand rest on the fixed handle B and the fingers grasp the fulcrumed handle B'. In both cases the spring-actuated slide-frame is moved by the power of the muscles of the hand, the extent of motion, or, in other words, the strength of the muscles of the hand, being indicated on the dial by the pointer *a'*, which pointer is moved by a rack, *a''*, attached to the connecting-rod B²; said rack meshing with a

pinion, a^4 , on the axle a^5 of the pointer a' , as shown in Figs. 5 and 6.

A latch, D, that is pivoted to a lug on one of the stays C^2 of the casing, engages a projecting stop, d , on the connecting-rod B^2 , as shown in Fig. 5, so that the slide-frame C cannot be moved as long as the latch D abuts on the stop d , whatever be the power exerted on the movable handle B' . When, however, the latch is released by being lifted clear of the projecting stop d , the slide-frame C can be moved by the handle B' in the direction of the arrow shown in Figs. 5 and 6. The releasing of the latch is accomplished by dropping a coin, e^x , of suitable size—a five-cent piece, for instance—through a slot, e , at the top of the casing A, said coin being conducted by a vertical coin-tube, E, that extends from the slot e downward to the axle of the pointer alongside of the slide-rod B^2 , said coin-tube being open at the lower end and at that side next to the axle a^5 , as shown in Figs. 5 and 6. The coin e^x is retained at the lower end of the coin-tube E by a slotted keeper, e' , at the lower end of the coin-tube and the axle a^5 , said keeper being attached to the side of the slide-rod B^2 , as shown in Fig. 7. When the coin e^x is in this position and the movable handle is grasped by the hand and moved toward the fixed handle, the coin e^x is moved in the keeper over the axle of the indicator and causes the laterally-projecting pin d' of the latch D to ride on the circumference of the coin, as shown in Fig. 6, so as to lift thereby the latch, release it from the stop d on the slide-rod B^2 , and permit the motion of the spring-actuated slide-frame C. As soon as the coin e^x has passed in the slotted keeper e' over the axle a^5 of the pointer a' , it is dropped to the bottom of the casing A, where the coins are collected until removed therefrom by opening the hinged rear wall. As soon as the coin e^x is dropped, the latch is also dropped back on the slide-rod B^2 , so as to abut against the lug d , when the hold on the movable handle and the slide-frame is relaxed, and the slide-frame and latch are returned by the springs to their normal position. (Shown in Figs. 2 and 5.) The latch locks thereby the slide-frame C again in position until the next coin is inserted, and by operating the handles the unlocking of the latch and the moving of the slide-frame are produced.

It will thus be seen that by a simple introduction of a coin of the proper size the exercising instrumentalities are automatically unlocked, so that the movable handle and slide-frame can be operated and thereby the strength of the muscles of the hand tested, which is indicated in degrees on the face-dial, while without the introduction of a coin of the proper size the machine remains in its normally-locked position. The machine can consequently be operated without any attendant by performing the conditions upon which the same may be called into action—to wit, the dropping of a coin of the proper size.

To the slide-rod B^2 of the slide-frame C are

attached one or more L-shaped pusher-rods, F F', &c., the lower horizontal parts of which are arranged in line with the bottom of one or more vertical receptacles, G G', &c., and with horizontal guide-tubes $g g'$, &c., at the lower ends of said receptacles. The guide-tubes $g g'$ pass through openings in the side wall of the casing A to the outside, and terminate in semicircular tubes or troughs $g^2 g^3$. The receptacles G G' are guided in fixed exterior guide-frames, G^x , and are provided at the lower ends with side openings, which register with the guide-tubes $g g'$ and the fixed exterior delivery-tubes, $g^2 g^3$, as shown in Fig. 4. The receptacles G G' are inserted into the guide-frames G^x through openings of corresponding size at the upper part of the casing A, and are closed by means of a hinged lid and a suitable lock, so as to be conveniently removed for refilling or exchanged with filled receptacles whenever required. The horizontal parts of the pusher-rods F F' are of different lengths, the longer one, F, working in connection with a receptacle that contains, for instance, cigarettes or other articles, while the shorter one, F', works in connection with a receptacle containing cigars, chocolate, or any other suitable article. When the movable handle B' is pulled toward the fixed handle B, so that the pointer indicates a certain figure, the longer pusher-rod, F, simultaneously pushes out a cigarette or other article from its receptacle G, whereas when the movable handle B' is moved still farther, so that the pointer indicates a higher number on the dial, the shorter pusher-rod, F', is moved into its receptacle and thereby a cigar or other article pushed out by the same and delivered to the delivery-tubes, from which they can be removed. If more than two receptacles are arranged, the remaining ones are successively called into operation in proportion to the increased power exerted on the movable handle, so that very strong pulls on the movable handle can obtain three, four, or more articles. The greater the strength of the muscles of the hand the better the chance of pushing out one or more of the prize articles. When the supply of articles in the storage-receptacles is exhausted, the same are refilled again and replaced in position in the exterior guide-frames through the slots in the top of the casing, which is done without requiring the opening of the rear door, as this is only done when the money collected at the bottom of the casing is desired to be removed.

The exercising-machine forms an entertaining device to be used in parks, exhibitions, restaurants, railway-stations, &c., the storage-receptacles being filled with cigarettes, cigars, or similar articles when the machine is to be used by grown people, or with chocolate, candy, or other articles when arranged for the use of children at sea-side resorts and the like.

I do not claim the combination, in a hand-power testing-machine, of a frame provided with a fixed handle, a rod mounted to slide in the frame and provided with a handle, a spring

adapted to be operated by said rod, automatic locking devices, and suitable means for releasing said locking device, but desire to confine myself to the combination of these parts with
5 push-rods and package-delivering devices.

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

1. The combination of a closed casing having a fixed handle, a movable handle, a guided
10 and spring-actuated slide-frame in said casing, means for connecting the movable handle with the slide-frame, a locking device for retaining the slide-frame in normal position, a releasing
15 device for unlocking the slide-frame, pusher-rods attached to the slide-frame, and package-delivering devices operated by said pusher-rods, substantially as set forth.

2. The combination of a closed casing having a fixed handle, a movable handle, a guided
20 and spring-actuated slide-frame at the interior of the casing, a slide-rod connecting the movable handle with said slide-frame, a locking device for retaining said slide-frame in normal position, a releasing device for unlocking the
25 slide-frame, one or more pusher-rods attached to said slide-rod, and storage-receptacles having

bottom guide-tubes and exterior delivery-tubes in line with the lower parts of the pusher-rods, substantially as set forth.

3. The combination of a closed casing having a fixed handle, a movable handle, a guided
30 and spring-actuated slide-frame at the interior of said casing, a slide-rod connecting the movable handle with said slide-frame, a locking device for retaining said slide-frame in normal
35 position, a releasing device for unlocking the slide-frame, one or more pusher-rods attached to said slide-rod, one or more detachable storage-receptacles, guide-frames for said receptacles, bottom guide-tubes, and exterior delivery-
40 tubes at the lower ends of said guide-frames in line with the pusher-rods, openings in the upper part of the casing, and a lid and lock for closing said openings, substantially as set forth.

In testimony that I claim the foregoing as my
45 invention I have signed my name in presence of two subscribing witnesses.

FERDINAND MOSSER.

Witnesses:

MARTIN PETRY,
SIDNEY MANN.