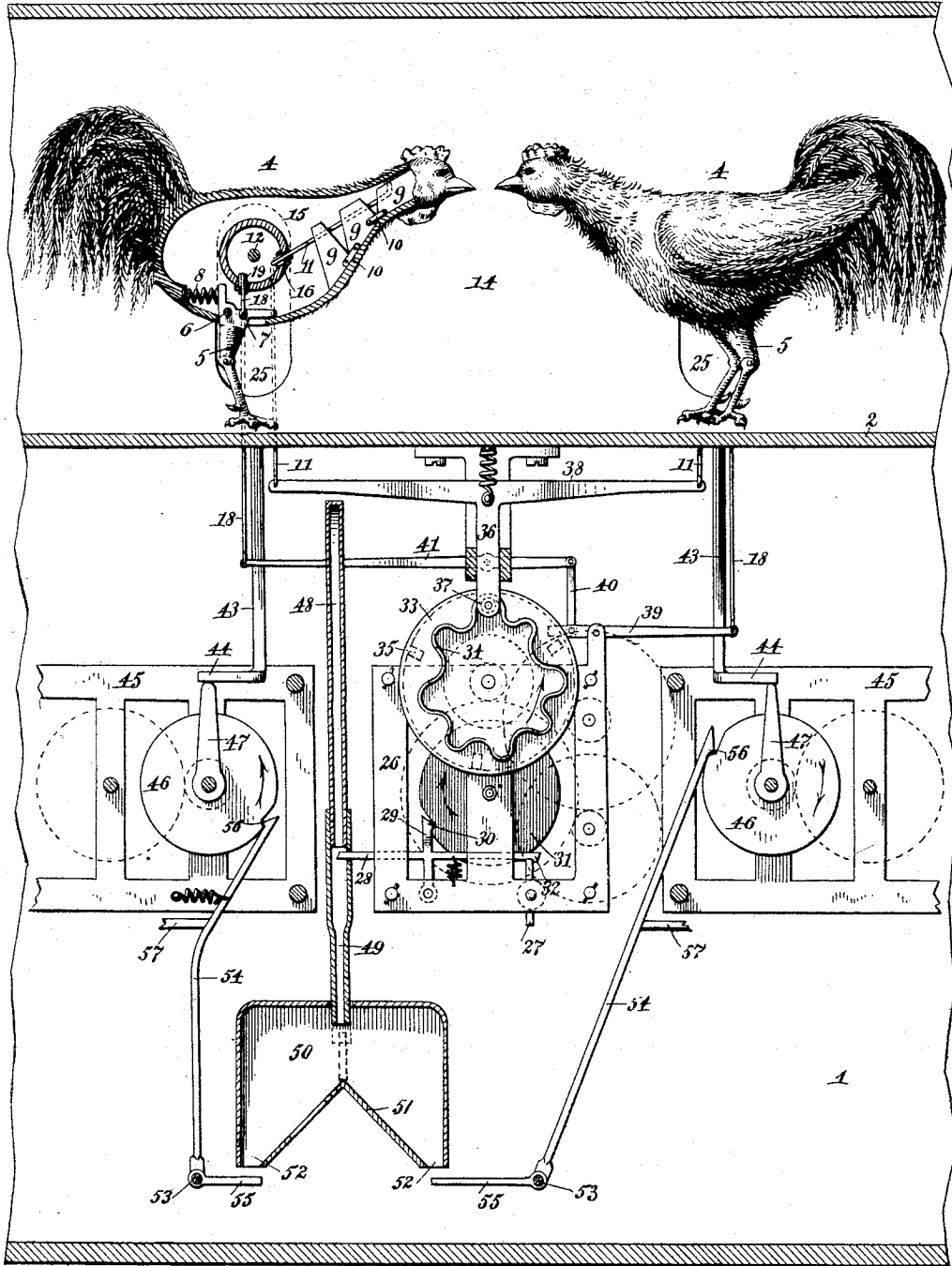


A. M. PIERCE.
COIN OPERATED AUTOMATON.

No. 411,108.

Patented Sept. 17, 1889.

Fig. 1.



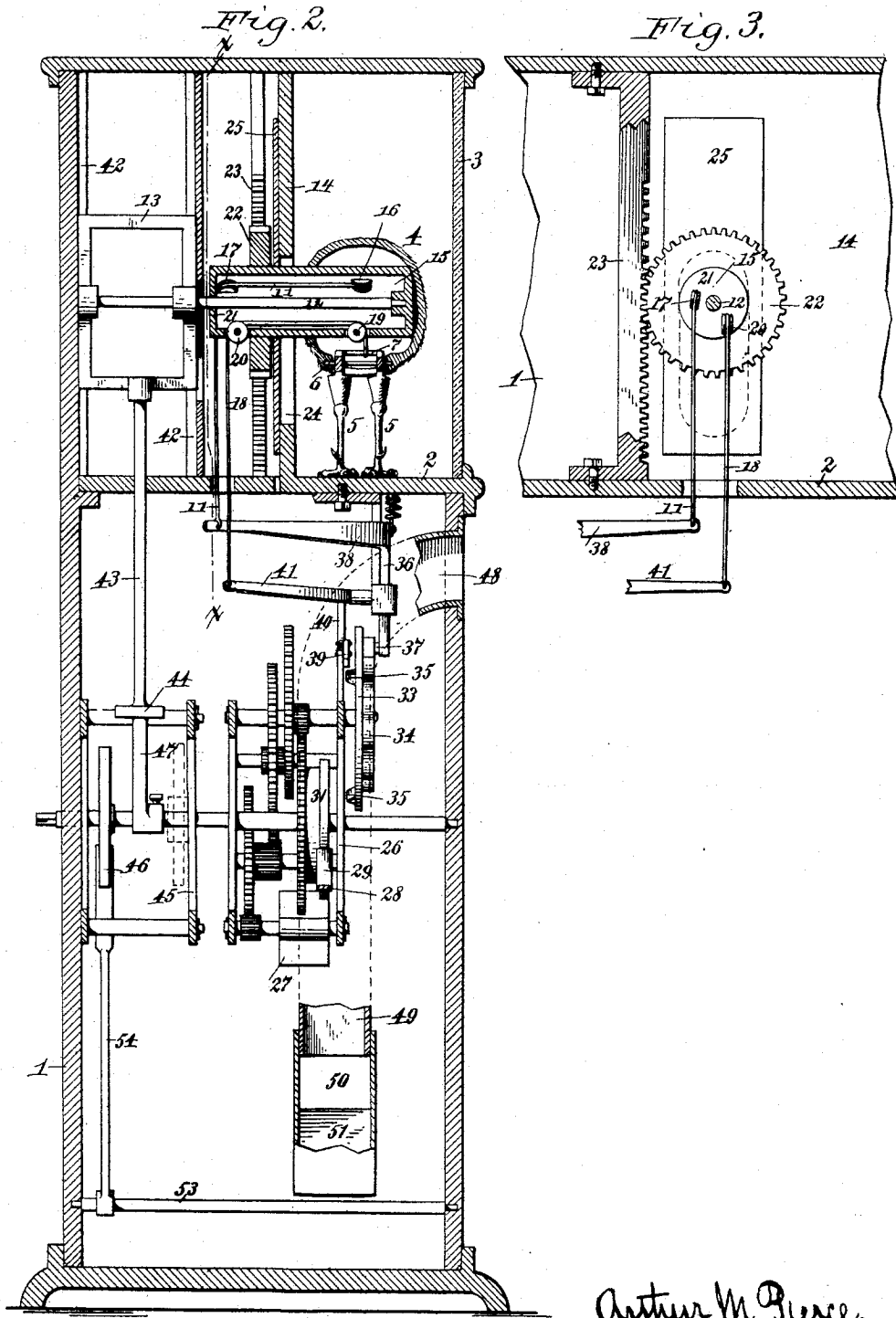
Theo. L. Popp } Witnesses,
Fred. Meyer }

Arthur M. Pierce
Inventor.

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UNITED STATES PATENT OFFICE.

ARTHUR M. PIERCE, OF BROOKLYN, NEW YORK.

COIN-OPERATED AUTOMATON.

SPECIFICATION forming part of Letters Patent No. 411,108, dated September 17, 1889.

Application filed December 29, 1888. Serial No. 294,933. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR M. PIERCE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Coin-Operated Automaton, of which the following is a specification.

My invention relates especially to automatic devices which are put in operation by the weight of a coin or token, and has for its object the provision of a device designed to amuse.

To attain the desired end my invention consists, essentially, in two figures, each of which is articulated and supported by and upon a concealed pivot at the back of the figure. Each figure is arranged to be operated by a common motor and also by separate motors for producing different movements; and my invention also involves certain other novel and useful combinations, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a front elevation with parts of the device shown in vertical section. Fig. 2 is a vertical cross-section, and Fig. 3 is a detailed sectional view at line *x x* of Fig. 2.

Like numerals of reference indicate corresponding parts.

1 is the main frame or case, provided with a platform 2 and a glazed panel 3.

4 4 are two figures representing cocks standing upon the platform 2.

5 are the legs of the cocks, pivoted upon a fixed pin 6 and connected together by a cross-bar 7.

8 is a spring which normally holds the feet down upon the platform.

Within the neck and head are a series of blocks 9, hinged together at 10.

11 is a cord fixed in the outermost block and passing through perforations in the other blocks forming the support for the neck.

12 is a horizontal shaft fixed in a yoke 13 in the case, back of the figure, and extending through the partition 14 into the body of the figure.

15 is a tube or frame mounted upon shaft 12, the body of the figure being secured thereto. I have shown said tube as exagger-

ated in size for convenience in illustrating my construction, and it is obvious in practice its proportions would be greatly reduced.

21 is a head secured to tube 15, said head being perforated for the passage of shaft 12, upon which it turns.

Fixed in tube 15 are pulleys 16 and 17, over which cord 11 passes down beneath the platform 2.

18 is a cord secured to cross-bar 7 and passing over pulleys 19 and 20 to the space beneath platform 2.

22 is a toothed wheel secured to tube 15, the teeth of said wheel meshing with a rack 23, fixed at the rear of partitions 14.

24 is a slot in partition 14 through which the tube 15 passes, and 25 is a slide through which tube 15 projects, said slide covering slot 24.

26 is a motor provided with a fly 27.

28 is a pivoted lever having an arm 29, terminating in a finger 30, arranged to engage with a notched disk 31. Lever 28 is also provided with a hook 32, for engaging with fly 27.

33 is a wheel forming a part of motor 26, having a cam-rib 34 upon one side and studs 35 upon the other.

36 is a vertical sliding bar having a friction-roller 37 pivoted to its lower extremity, which engages with the cam-rib 34, and at top a cross-bar 38, to which cords 11 are connected.

39 is a lever pivoted to the motor-frame, one end of said lever being connected to a cord 18 and the other arranged to strike the lugs 35 on the inner side of wheel 33. Pivoted to lever 39 is a bar 40, which also engages with a lever 41, to which the second cord 18 is secured.

The yoke 13 is arranged to slide in ways 42, and has a downwardly-extending stem 43, terminating in a foot 44.

45 45 are motors, each provided with a notched wheel 46, to the shaft whereof is fixed an arm 47.

48 is a fixed coin tube or chute having at its lower extremity a sliding extension 49, perforated for the passage of the outer arm of lever 28. Extension-tube 49 passes into a receiver 50, having a Λ -shaped bottom 51,

with a chute 52 at each side. For convenience I have shown but a small portion of chutes 52; but in practice these chutes are continued downward some distance.

5 Pivoted at 53 are levers 55, each having an arm 54, terminating in a finger 56, designed to enter the notch in wheels 46.

57 indicates arms designed to engage with the flies of the motors 45.

10 The operation of my device is as follows: A coin being introduced into chute 48 descends until it strikes lever 28, depressing said lever and carrying the sliding tube 49 downward, as indicated by the dotted lines,
15 when the coin will fall and rest upon the point of the Λ -shaped bottom 51 of receiver 50, being held there by the tube 49. The depressing of lever 28 releases fly 27, and as the motor acts the cam-wheel will draw bar 36, bearing
20 arms 38, downward, its return movement being accelerated by the springs 58. This movement will cause the heads of the cocks to be simultaneously raised and lowered through the medium of cords 11. The studs
25 35 on wheel 33 will strike the free end of lever 39, drawing upon cords 18, causing the cocks to simultaneously strike forward with their feet. These movements will continue until wheel 31 has made a complete revolution,
30 when the notch in said wheel will permit lever 28 to return to a horizontal position, raising tube 49 and permitting the coin to fall into one of the branch chutes 52, starting one of the motors 45 in the same manner
35 as described for motor 26. When wheel 56 turns, arm 47 will pass from beneath foot 44, permitting the yoke 13 to drop, and as it drops tube 15 will be caused to revolve a portion of a revolution through the medium of toothed
40 wheel 22 and rack 23, throwing the cock attached to that tube upon his back on platform 2. The slide 25 is carried downward and keeps slot 24 covered at all times. As arm 47 passes upward upon its return to a
45 vertical position, it will bear against foot 44, raising the yoke, returning the cock to a standing position, when the motor will be stopped, as hereinbefore described.

Having now fully described my invention,
50 what I claim is—

1. As an improvement in coin-operated automatons, the figures of two cocks in a fighting attitude, a common motor adapted to actuate the necks and legs of both of said cocks, and
55 an independent motor for each cock, one of said independent motors being arbitrarily controlled by the weight of a coin and adapted to move the respective cock to which it is attached.

60 2. In a coin-operated automaton, two figures having their movable parts connected to a common motor and the bodies each connected with independent motors, each of said motors having a tripping-lever adapted to be actuated
65 by the weight of a coin.

3. As an improvement in coin-operated automatons, the figures of two cocks in a fighting

attitude, the necks of said figures being articulated, as shown and described, and provided with connections to a common motor. 70

4. As an improvement in coin-operated automatons, the figures of two cocks in a fighting attitude, the legs of said figures being articulated and having connections to a common operating-motor independent of the other
75 movable parts of the figures.

5. As an improvement in coin-operated automatons, the figures of two cocks in a fighting attitude, the movable legs and necks of said figures having independently-operating con-
80 nections to a common motor.

6. The combination, with the two articulated figures, each provided with an independent motor, of a coin-chute having branches leading to the tripping-lever of said independ-
85 ent motors and a tripping-lever beneath each of said branches and adapted to control the movements of said independent motors, substantially as shown and described.

7. The combination, with the articulated
90 figures, each connected with a common motor and each provided with an independent motor, of a coin-chute terminating in branches leading to the tripping-levers of said independent motors and the tripping-levers, substantially
95 as shown and described.

8. The combination of the coin-chute, the tripping-lever connected with the common motor, the branches below said chute and the tripping-levers, and the independent motors
100 beneath said branches, substantially as set forth.

9. A coin-operated automaton in which are comprised two articulated figures, each movably supported on independent horizontal
105 pivots connected with independent motors.

10. A coin-operated automaton in which are comprised two articulated figures, the movable parts of said figures having connection with a common motor, a movable supporting-
110 pivot for each figure having connection with an independent motor, a coin-chute, a lever controlling the common motor branches of said coin-chute, and levers controlling the independent motors and arranged beneath each
115 of said branch coin-chutes, substantially as shown and described.

11. The combination, with the two figures having their necks and legs articulated, as set forth, of a common actuating-motor hav-
120 ing connection with the figures, a coin-chute, and a tripping-lever adjacent to said coin-chute and adapted to operate by the weight of a coin.

12. In a coin-operated automaton, the combination, with the actuating-motor, of a figure
125 having a neck composed of a series of blocks hinged to each other and a cord passing from the head through said hinged blocks and connecting with the coin-actuated motor. 130

13. In a coin-operated automaton representing cocks in a fighting attitude, the combination, with the legs pivoted to the body and normally held in a vertical position by a

spring, of connections between the legs and the coin-actuated motor.

14. In a coin-operated automaton, the combination, with the coin-controlled motor, of a vertically-movable yoke having connections with said motor, a horizontal shaft carried by said yoke, and a tube mounted upon said shaft supporting the figure.

15. In a coin-operated automaton of the character herein specified, the combination, with the horizontal shaft, of the tube journaled upon said shaft, the figure fixed to said tube, and the pulleys over which the cords connected to the movable parts of the figure and with the coin-actuated motor pass, pivoted in said tube, substantially as shown and described.

16. In a coin-operated automaton of the character herein specified, the combination, with the figure having an articulated neck and a cord passing therefrom, of an arm fixed to a vertically-movable bar bearing a pin engaging with a cam-wheel upon the coin-controlled actuating-motor, said cord being attached to the movable bar, substantially as shown and described.

17. In a coin-operated automaton of the character herein specified, the combination, with a wheel upon the coin-actuated motor, provided on one side with a stud, of a vertically-movable lever against which said stud is adapted to strike and connections between said lever and the pivoted legs of the figure.

18. In a coin-operated automaton of the character herein specified, the combination, with the coin-actuated motor bearing a wheel having a cam upon one side and a stud or studs upon the other, of connections to the articulated legs and necks of the two figures adapted to be alternately actuated by the rotation of said wheel upon the coin-controlled motor.

19. The combination, with the coin-chute, of the horizontal lever projecting into said chute and provided with two fingers, one of which is adapted and arranged to enter a notch in a disk upon the motor with which said lever is connected and the other to engage with the fly of the motor, substantially as shown and described.

20. The combination, with the fixed coin-chute having a slidable portion, of a tripping-

lever projecting into the slidable portion and controlling the movement of a motor, substantially as shown and described.

21. The combination, with the fixed coin-chute having a slidable portion, of the receptacle into which the slidable portion projects, substantially as shown and described.

22. The combination, with the fixed coin-chute having a slidable portion, of the receptacle beneath said chutes having a Λ -shaped bottom and independent branch chutes, substantially as shown and described.

23. The combination, with the fixed coin-chute having a slidable portion entering a receptacle provided with a Λ -shaped bottom and branch chutes, of the levers projecting beneath said branch chutes and controlling the movements of independent motors, substantially as shown and described.

24. In a coin-operated automaton of the character herein specified, the combination, with coin-controlled actuating-motor, the yoke supporting the horizontal shaft, rotatable tube, and figure, of the slotted partition between said yoke and figure and the slide over said slot, substantially as shown and described.

25. In a coin-operated automaton of the character herein specified, the combination, with the coin-controlled actuating-motor and the slidable yoke bearing the horizontal shaft, of the rotatable tube mounted upon said shaft and supporting the figure and provided with a toothed wheel, and the rack with which the teeth of said wheel mesh, substantially as shown and described.

26. In a coin-operated automaton of the character herein specified, the combination, with the slidable yoke bearing the horizontal shaft supporting the movable figure, of the downwardly-projecting stem of said yoke, terminating in a horizontal foot, and the arm upon the motor adapted and arranged to engage with said foot, substantially as shown and described.

Witness my hand this 13th day of December, 1888.

ARTHUR M. PIERCE.

Witnesses:

THEO. L. POPP,
FRED. C. GEYER.