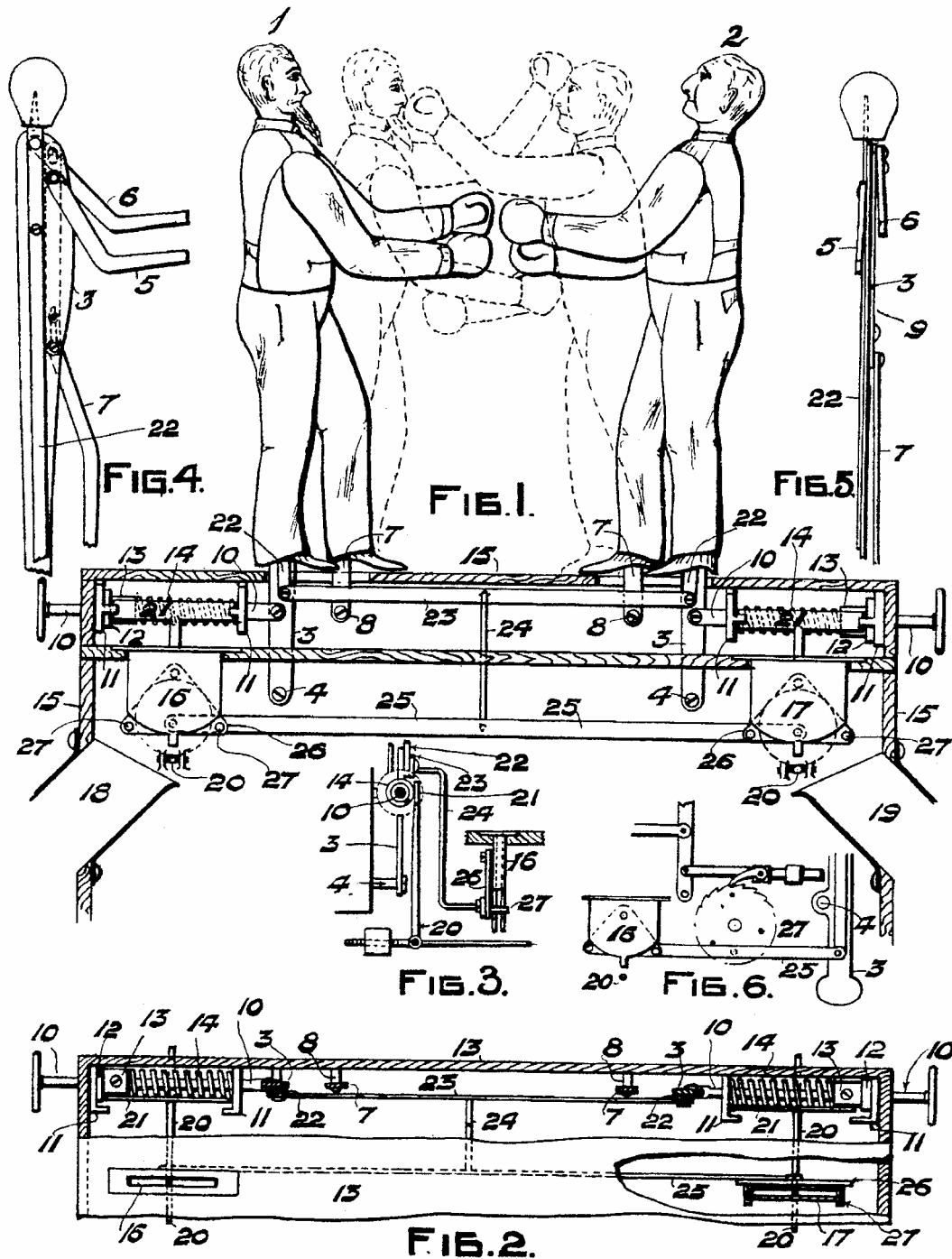


W. C. HAIGH.  
COIN CONTROLLED TOY.

(Application filed Feb. 1, 1901.)

(No Model.)



Witnesses:  
Geo H Potts  
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# UNITED STATES PATENT OFFICE.

WILLIAM CHANCELLOR HAIGH, OF CHORLTON-CUM-HARDY, NEAR MANCHESTER, ENGLAND.

## COIN-CONTROLLED TOY.

**SPECIFICATION** forming part of Letters Patent No. 697,478, dated April 15, 1902.

Application filed February 1, 1901. Serial No. 45,660. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM CHANCELLOR HAIGH, a subject of the Queen of Great Britain and Ireland, and a resident of Chorlton-cum-Hardy, near Manchester, England, have invented a new or Improved Coin-Controlled Toy, of which the following is a specification.

This invention refers to a new toy or contrivance which in its action is intended to resemble a pugilistic or boxing encounter between two toy figures. It is operated by one or two persons and is under the control of duplicate coin-freed mechanism, which returns the coin to the player whose figure first deals 15 a certain blow upon the figure operated by the other player and causes the other player's coin to fall into an inclosed box or receptacle.

The accompanying drawings illustrate the salient features of the invention as combined with coin-freed mechanism, and by the aid of the reference-numerals marked thereon I will proceed to describe the same in detail.

Figure 1 illustrates a front elevation, partly in section, and Fig. 2 a plan, also partly in section, of the improved toy and coin-freed devices. Fig. 3 illustrates a part transverse section of the casing and shows an edge view of certain important parts. Figs. 4 and 5 illustrate side and edge views, respectively, of the devices of which each boxing figure is composed. Fig. 6 illustrates a modification.

According to my invention I employ two boxing figures 1 2, each of which comprises a plate or body part 3, (see Figs. 4 and 5,) pivoted upon a fixed stud or axis 4. Each figure also comprises a fixed arm 5, a loosely-pivoted arm 6, bent to the necessary boxing angle, as shown, and upon that side of the plate 3 to which the arm 6 is attached a leg 7, pivoted at its lower extremity to a fixed stud 8 and at its upper extremity coupled by link 9 to the arm 6. With the plate 3 of either figure caused to lean forward from the vertical position it will be seen that by reason of the resistance offered by the stud 8 the leg 7 will move the link 9 and arm 6 upward, and therefore with each figure clothed and the arms 5 6 provided with gloves, as shown in Fig. 1, the leaning forward of the figures will cause them to strike at each other in close resemblance to or imitation of a boxing contest.

To facilitate the manipulation of the figures, I provide each of them with a small plunger 10, working in guides 11, provided with a fixed collar 13 with flange 12 and surrounded by a spring 14, which latter returns the plunger after each forward movement.

In applying the coin-freed mechanism I mount the studs 4 and 8 within an inclosed casing 15, which also incloses the figure-operating mechanism, excepting the disk end of the plungers 10. In such casing I provide two coin-freed inlet-chutes 16 17 and two coin-outlet chutes 18 19, and below each inlet-chute I arrange one arm of a balanced bell-crank lever 20, upon which the coins drop and rest after insertion in the inlet-chutes. The other arm of each lever 20 is provided with a cross piece or bar 21, and with the inlet-chutes empty the balance of each lever is such as to hold the bar 21 against or alongside the spring 14 and between the flange of collar 13 and the fixed guide 11, thereby locking the plungers 10. Upon the insertion of coins in the inlet-chutes both of the figures 1 and 2 75 are free to be operated by the plungers 10.

Within each figure and pivoted upon each plate 3 is a lever 22, which at one end carries the head of the figure and at its other end is connected to a link 23. This link is common to both levers, and about midway along its length is an extension 24, by which the link 23 is in turn connected to a further link 25. This latter is the connecting-link between two swivel-plates 26, pivotally mounted upon the sides of inlet-chutes 16 17. Each swivel-plate is provided with two small studs 27, which extend across the opposite edges of inlet-chutes and in their normal position help to retain the coins in the chutes and directly upon the horizontal arms of levers 20. With the head of each figure 1 and 2 thus connected to the levers 22 it will be seen that on the figures being manipulated by the plungers 10 and, say, the arm 6 of the figure 1 95 caused to deal a smart and definite blow upon the head part of the figure 2 the lever 22 of such figure 2 will be caused to move on its pivot and to impart lateral movements to the links 23 and 25 and radial movements to the swivel-plates 26, which moving in a direction toward the left-hand end of the casing dis-

lodge the coin within chute 16 into the outlet-chute 18 and the coin in chute 17 into the box or casing 15. When the arm 6 of the figure 2 strikes the head part of the figure 1, the operations of the levers 22 are reversed, the coin within chute 17 being dislodged into the outlet-chute 19 and the coin in chute 16 falling into the casing. With the arm 6 capable of rising quickly and to a greater height than the head of the opponent figure, also by reason of its being slotted and somewhat loosely pivoted, and each figure taking part in the combat and constantly changing position under the movements of the plungers 10 the skill required upon the part of the operators to bring about the desired result is very considerable. Upon the coins being dislodged as aforesaid the levers 20 and bars 21 immediately relock the plungers 10 until 20 further coins are inserted.

To prevent tampering with the boxing figures, the same may be inclosed in a glass case.

While preferring both figures to move, I may, if desired, arrange for one to be stationary and the other one to move and in such connection use one coin which shall be returned if the moving figure strikes the head of the stationary figure or be retained if it falls, the mechanism being much the same as that shown on the drawings—i. e., with a swivel-plate 26 adapted to dislodge the coin into the box—say after six strokes of the plunger—or tilt it into an outlet-chute when the head of the stationary figure is struck.

In Fig. 6 I show how this arrangement might be effected, the plunger 10 operating a small ratchet-wheel 27 a tooth at a time for each return stroke and by means of a pin on its side opposite every sixth tooth engaging the link 25 and tilting the plate 26. By mounting the stationary figure on a pivot it may be given a slight swaying movement with the impulses of the plunger 10, which would just press against the figure at the end of each forward stroke.

The outlet-chutes 40 41 are by preference in the form of narrow slits terminating in a ledge 42, so that when the coins emerge therefrom they lie on edge handy for withdrawal. What I claim is—

1. In a coin-controlled toy, two toy figures, fixed axes carrying such figures, means for inclining each figure toward the other figure, and each figure having a loose leg and arm and a link connecting such leg and arm and a stud to which the foot end of the leg is connected, so that by the inclining of the figure the arm is caused to move radially upward 60 and toward the other figure, a lever adjacent

to each figure, a head on such lever, a link-rod connecting the levers, and coin-controlled mechanism, substantially as and for the purposes herein set forth.

2. In a coin-controlled toy, two plates representing the body parts of two toy figures, studs on which such figure-plates are mounted, and an inclosed box or casing within which the studs are fixed, an arm fixed on each of the said figure-plates, a leg with slot connected to each plate, a further stud within the box or casing and on which the said loose leg is mounted, a loose arm pivotally connected to each figure-plate, a link pivotally connected to the loose arm and leg of each figure-plate, means for independently moving the plates upon their axes, a lever alongside each figure-plate, a pin on the plate and on which the said lever is mounted, a toy head on the upper end of said lever, and a link or connecting rod common to both figure-plate levers connected to the opposite end, a pair of coin-chutes in the said casing, and adjacent to the said figure-plate-operating means, swivel-plates pivotally mounted on the sides of the chutes, a bar or link connecting such plates, and a rod connecting the said bar to the connecting-link of the levers aforesaid, bell-crank levers within the box and with one arm of each lying below one of the coin-chutes and the other arm having a T-shaped extremity which normally locks the figure-operating means, substantially as and for the purposes set forth.

3. In a coin-controlled toy, a casing, two toy figures of the kind described pivotally supported within said casing, a set of inlet-coin chutes, a set of swivel-plates with studs upon the sides of such chutes, a link or bar connecting the swivel-plates, and means for connecting such link or bar to a link by which parts of the toy figures are connected to each other, as set forth.

4. In a coin-controlled toy, a pair of coin-inlet chutes, plungers for operating toy figures, a pair of levers, one arm of each lever lying below one of the inlet-chutes, and the other arm lying adjacent to one of the said plungers, a bar or cross-piece upon such arm, a collar with flange upon each plunger, and a fixed guide or abutment, between which latter and the said collar the cross-piece of the lever-arm normally lies, as set forth.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WILLIAM CHANCELLOR HAIGH.

Witnesses:

WALTER GUNN,

JOHN CAMP.