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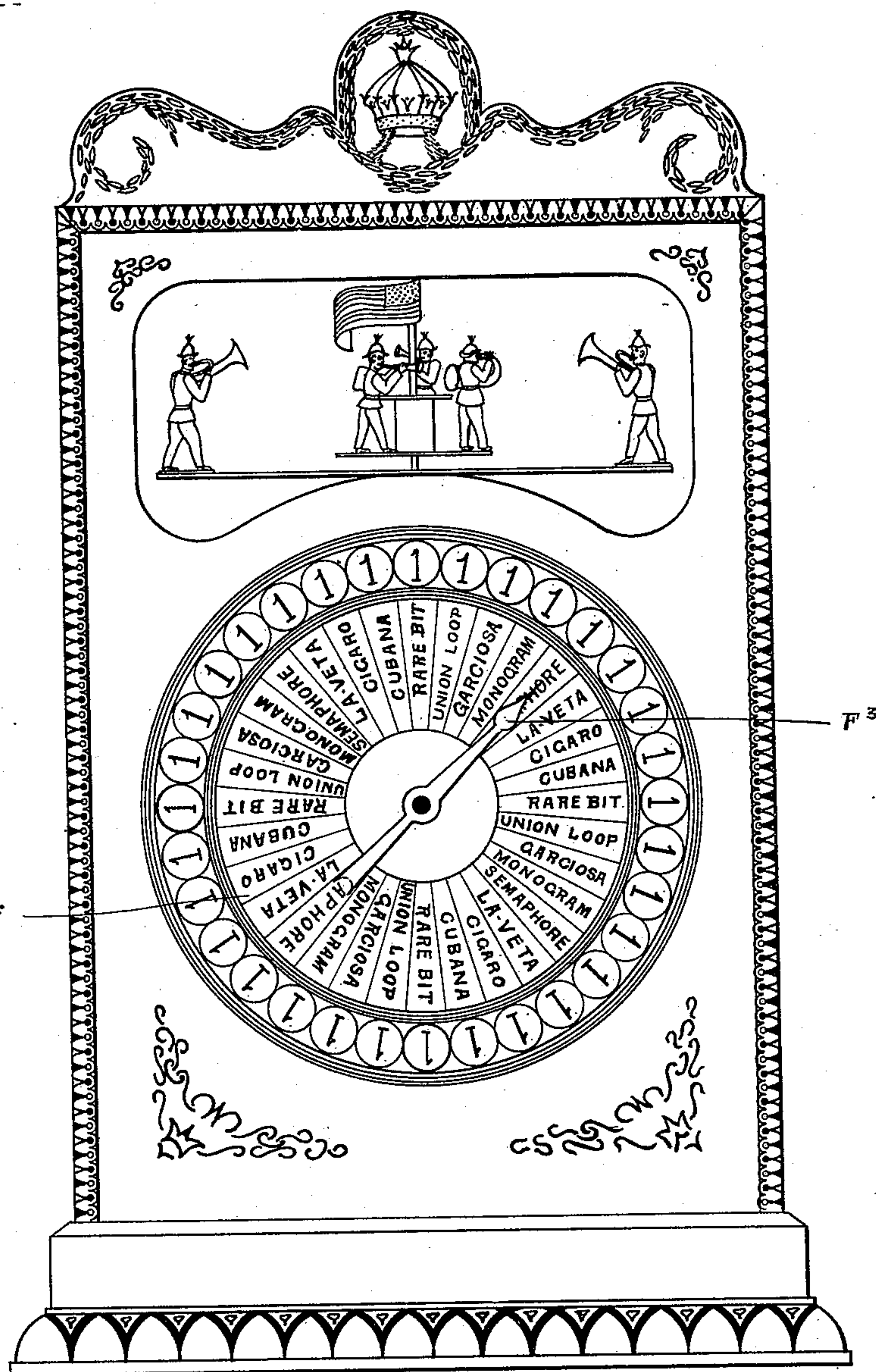
J. NICHOLS & J. H. DAVIS.

COIN CONTROLLED VENDING AND AMUSEMENT MACHINE.

No. 594,550.

Patented Nov. 30, 1897.

FIG. 1.



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FIG. 2.

FIG. 3.

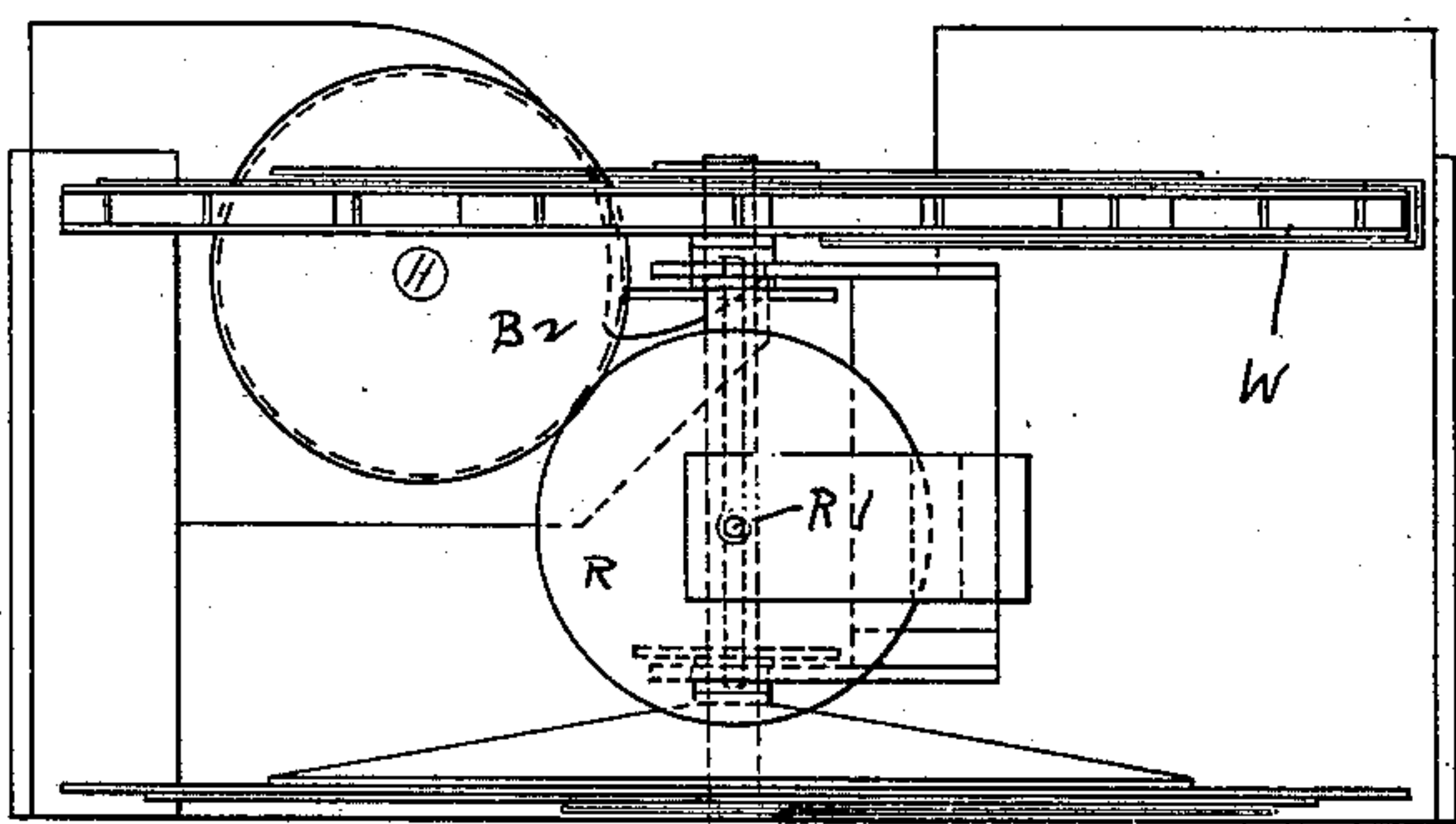
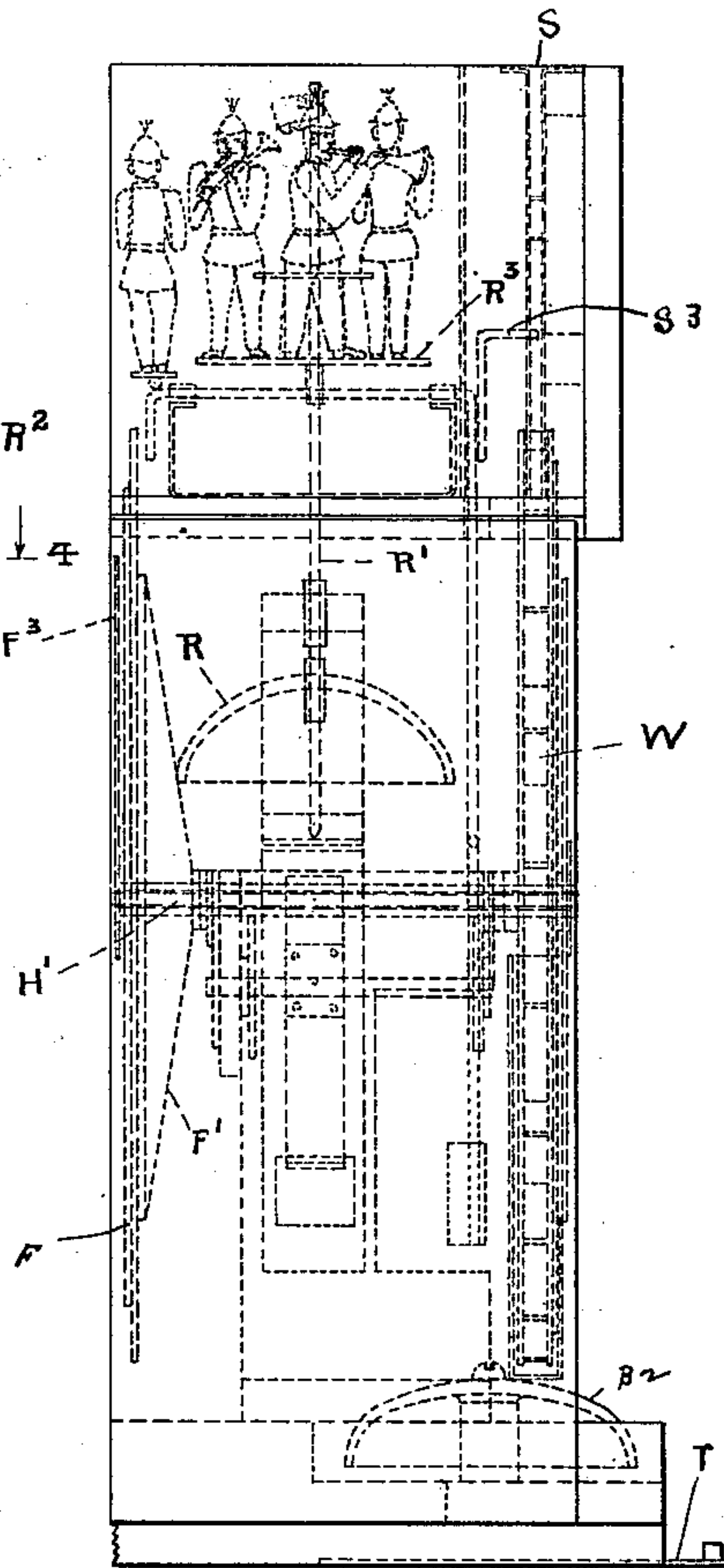
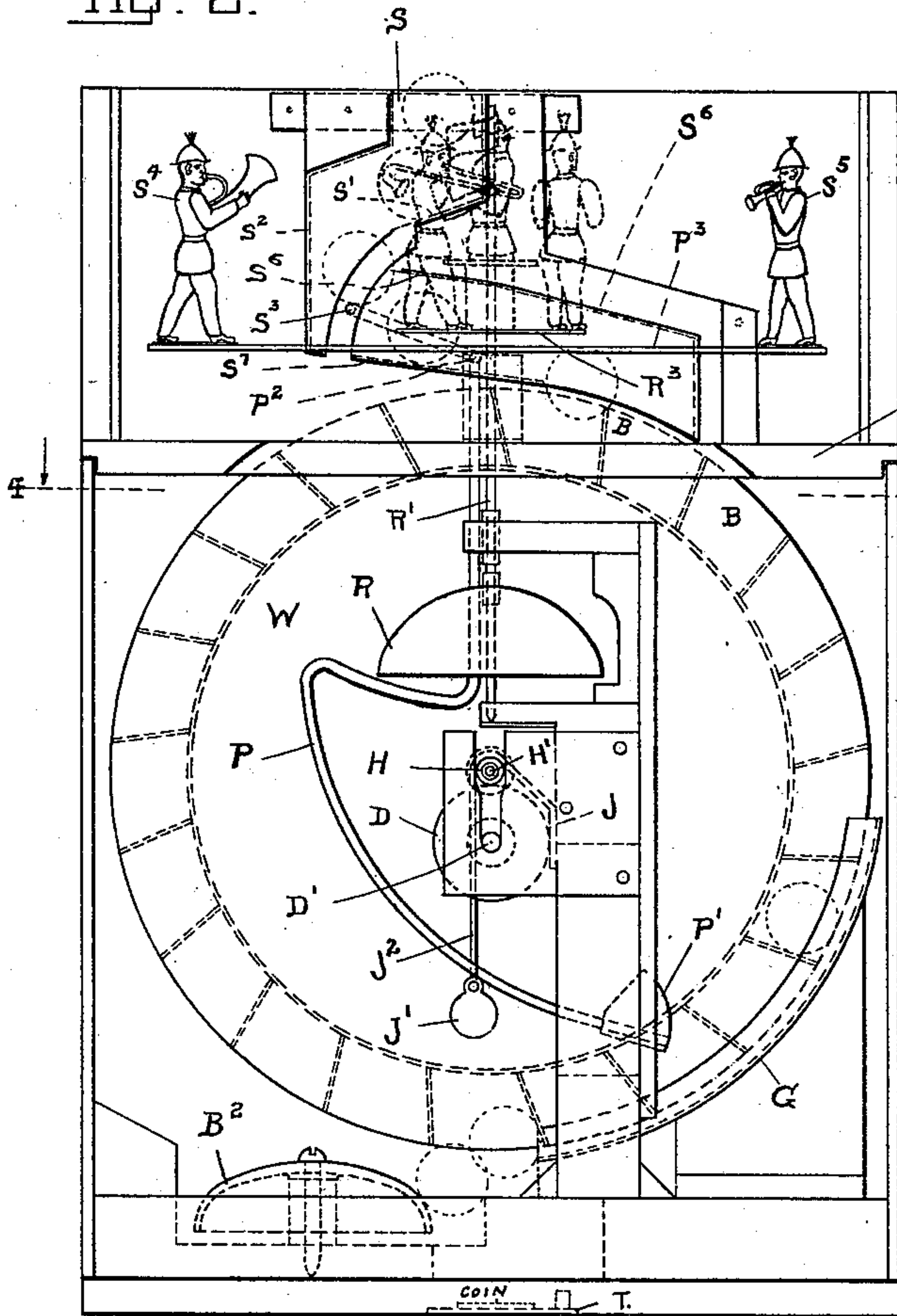


FIG. 4.

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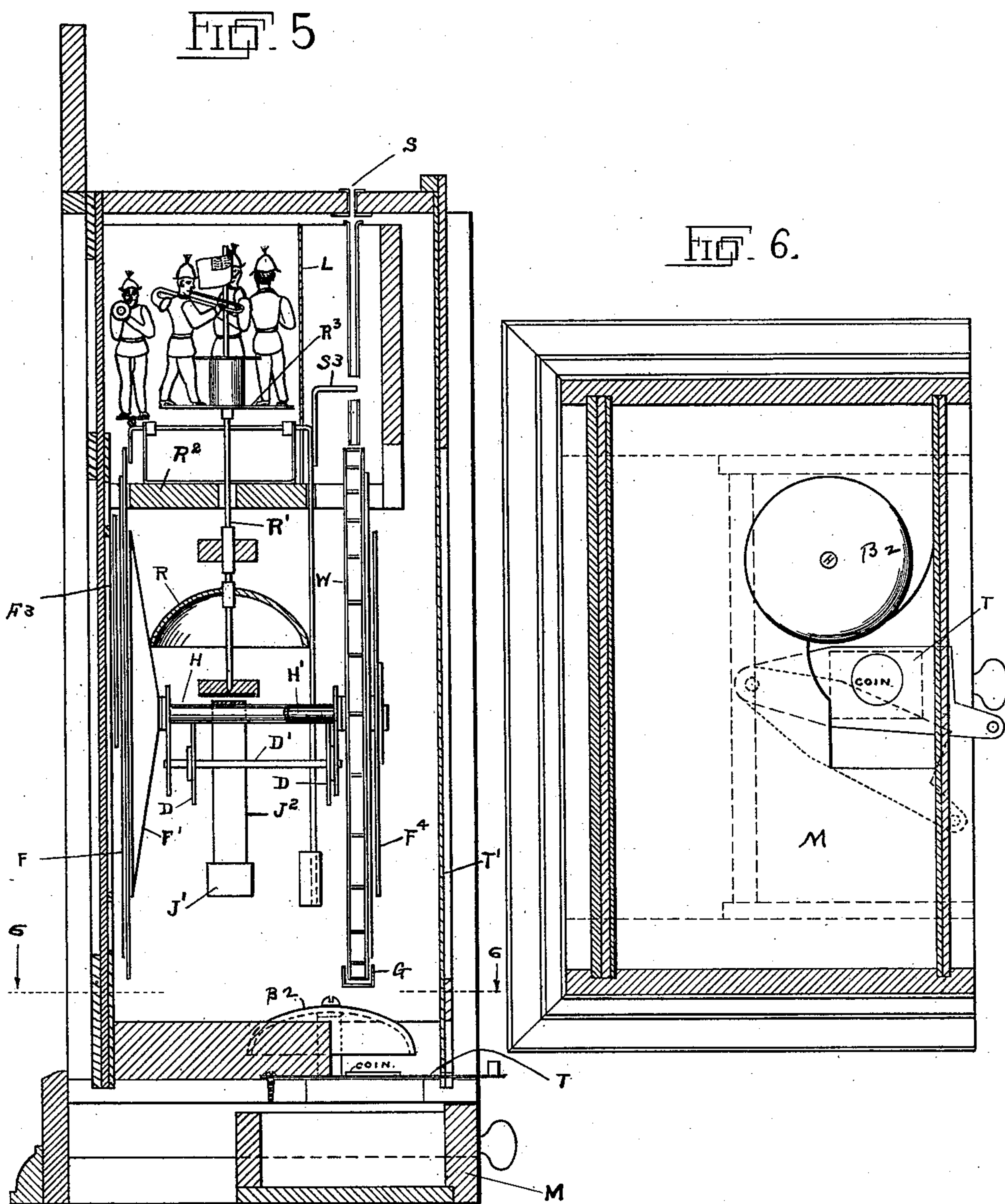
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Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH NICHOLS AND JOHN HENRY DAVIS, OF CHICAGO, ILLINOIS.

COIN-CONTROLLED VENDING AND AMUSEMENT MACHINE.

SPECIFICATION forming part of Letters Patent No. 594,550, dated November 30, 1897.

Application filed May 13, 1897. Serial No. 636,301. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH NICHOLS and JOHN HENRY DAVIS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Coin-Controlled Vending and Amusement Machines, of which the following is a specification.

Our invention relates to that class of machines wherein the gravity of the coin in falling through the machine causes a disk to rotate, and which in turn rotates an indicator-hand and also sets in motion a set of figures, producing an interesting scene, and the point at which the disk and indicator-hand come to rest indicate the article which the person inserting the coin has purchased, or it may indicate certain words or expressions placed upon the dial and at the margin of the dial in a manner and of a character to amuse the person, as it were, for telling his future.

The object of our invention is to produce a simple and cheap machine for the purpose described, and one which will have several merits more specifically described herein and set forth in the claims.

Reference being had to the accompanying drawings, Figure 1 is a front view of the machine, which is here shown as having the dial provided with the names of different brands of cigars. Fig. 2 is a front detailed view of the parts of the machine above the money-drawer, with the front dial removed. Fig. 3 is a side view of a similar section to that of Fig. 2, with the internal parts shown in dotted lines. Fig. 4 is a plan sectional view on line 4 4 of Fig. 2. Fig. 5 is a sectional view of the entire machine. Fig. 6 is a plan sectional view on line 6 6 of Fig. 5.

M on the drawings designates the money-drawer into which the coin falls after having performed its function in the travel through the machine. This drawer is at the center of the base portion of the machine and in the rear and is not shown in Fig. 1.

The coin is inserted in the slot at the top of the machine, designated at S, (see Figs. 5 and 2,) and it falls down onto the apron S' and is thereby directed over against the wall S²; and thence it falls vertically and strikes the projection S³ of the pendulum-arm P,

which pendulum-arm P is provided with a weight P' at its bottom and is pivoted at P² in the frame of the machine, and the rod forming this pivot extends across the front side and supports and carries a cross-arm P³, on which are mounted the musicians S⁴ and S⁵. The movement of the coin in falling on the projection S³ causes the pendulum to swing and set the musicians S⁴ and S⁵ in motion. The arm P is curved, as shown, to permit it to swing clear of the center shaft of the machine, and the projection S³ moves out of the way and permits the coin to pass under the guide S⁶ and roll along on the apron S⁷ and fall into a bucket B of the bucket-wheel W. The movement of the coin falling into the bucket B causes the bucket-wheel W to revolve and carry the coin with it, and when the coin has fallen below the center of the wheel there is a guard G to prevent the coin from falling out of the bucket, and the coin continues to travel with the bucket until it passes the end of the guard, when it falls outward and downward to the left, striking a little bell B², which is thereby sounded and calls attention to the fact that the coin has completed its travel. The coin then falls downward to a position shown in Figs. 2, 5, and 6, resting on a slide or trap T, which is simply a thin plate or cover pivoted to swing to cover and uncover the money-drawer and is in full view from behind, a plate of glass T' being placed in the rear of the machine to permit this observation. The attendant in charge of the machine then moves the trap T and permits the coin to fall into the money-drawer M. The dotted lines at several points in Fig. 2 indicate different positions of the coin in traveling through the machine.

The shaft H for the bucket-wheel W is made hollow, and it is mounted in bearings which hold it from lateral displacement and is supported vertically by disks D, mounted on the axis D' and supported in the same brackets that retain the shaft H in position. The disks D are designed to be simple anti-friction-bearings for the shaft H in order that it may revolve very freely.

To the front end of the shaft H there is fixed the dial F, on which are printed the different words desired. The back of this dial is pro-

vided with a conical reinforcing-plate F' , which as it revolves comes in contact with a semiglobular rubber shell R , which shell is fixed to a vertical shaft R' , which passes up
 5 through the floor R^2 of the machine and supports the disk R^3 , on which are mounted small figures of musicians, and the central spindle of the shaft is carried upward and serves the purpose of a flagstaff, on which is fixed a flag.
 10 The movement of the dial F is imparted to the disk R^3 , supporting the musicians, and thereby they move about somewhat in the order of a band marching with colors flying. The semiglobular disk R , being made of rubber, yields readily to any inequalities of the
 15 backing F' and at all times furnishes sufficient adhesion to revolve with the movement of the dial-plate, since it is necessary that all the parts move with the greatest ease in order
 20 to be actuated by the gravity of the coin in falling.

Through the center of the hollow shaft H there is mounted a shaft H' , which carries the indicator-hand F^3 . A similar hand is also pro-
 25 vided, as shown by F^1 , at the rear of the machine, the purpose being to duplicate the hands and dials, in order that the attendant at the back of the machine may see substantially what is shown by the face of the machine. The shaft H' , carrying the indicator-
 30 hand, is revolved simply by its frictional contact with the shaft H , and the movement of the shaft H in starting is rather sudden and does not at the first instant move the shaft H' ,
 35 as a little time is consumed in overcoming the inertia of the shaft H' and its indicator-hands, and again when the shaft H comes to rest the inertia of the shaft H' continues to revolve until the friction has overcome its movement.
 40 Hence there is a difference of position of the indicator-hand with that of the face of the dial every time they come to rest after moving.

Fixed at J and trained up over the shaft H and loaded at the bottom with the weight J'
 45 is a strap J^2 , the purpose of which is to act as a detent to the backward movement of the bucket-wheel W and dial-plate F , as the said wheel and dial are not always properly balanced and were it not for this detent might
 50 oscillate backward and forward and be unstable for a time in stopping; but with this frictional detent the dial is held at rest at whatever point it may stop without a backward movement or recoil.

55 The machine is neatly designed and is provided with a glass front for the dial and the scene at the top of the dial, and in the rear and at the sides of the figures at the top there is provided a looking-glass L , which causes
 60 the figures to appear in duplicate and in a multiplicity of forms, owing to the oscillation of the side figures and the rotation of the central figures, which produce a pleasing and interesting scene.

65 The position at which the indicator-hand stops in relation to the dial indicates the article that the person has purchased who in-

serted the coin in the slot, or it may indicate, as we before stated, some future event to transpire in the life of the person.

70 It is a common occurrence for people on buying cigars to be undecided as to what cigar they wish to purchase, and they refer it to the option of the merchant to furnish them what he thinks will suit them, and the merchant
 75 who is provided with one of these machines may afford the customer much amusement by referring the decision to the machine. By simply placing the coin in the slot the machine is operated, setting in motion the figures,
 80 striking the alarm-bell, and moving the dial and the indicator-hand into new positions, indicating the brand of the cigar which he will then supply the customer.

85 Instead of names of cigars being placed on the dial names of different brands of candy may be used for use in a confectionery store, where much amusement will be afforded the children in the changing of the scene at the top and by indicating the article which they
 90 have purchased.

The several parts of the machine arranged as described are very cheaply made and operate very successfully and have much merit in the details of their construction aside from
 95 the general excellency of the broad principles of the machine.

What we claim is—

1. A combination of a wheel provided with buckets actuated by the falling of the coin
 100 and mounted upon a hollow shaft, a dial mounted upon said shaft, an indicator-hand before the face of the dial, the shaft supporting the indicator-hand being moved by frictional contact with the bucket-wheel shaft in
 105 the manner shown and for the purpose described.

2. The combination of the bucket-wheel mounted to be revolved by the falling of the coin, of a dial mounted on the bucket-wheel
 110 shaft; with a vertical shaft provided with a flexible disk engaging by friction the dial on the bucket-wheel shaft and revolved thereby, said vertical shaft carrying figures or images in the manner shown and for the purpose de-
 115 scribed.

3. The combination of the bucket-wheel adapted to be revolved by the falling of the coin, and of a pendulum-arm supporting figures as shown and adapted to be swung by
 120 the momentum of the coin in falling, with a vertical shaft supporting figures as shown and provided with an elastic friction-disk for engaging a disk on the axis of the bucket-wheel and thereby driven, combined and arranged
 125 substantially as shown and described.

4. The combination of a bucket-wheel adapted to be revolved by the falling of the coin; said bucket-wheel being mounted upon a hollow shaft, and a dial-plate mounted on
 130 said shaft and revolving therewith; with an indicator-hand shaft mounted within the cavity of the hollow bucket-wheel shaft and revolved by frictional contact with the bucket-wheel

shaft and with a detent for preventing the backward movement of the hollow shaft, but not the movement of the indicator-hand shaft, in the manner shown and for the purpose described.

5. The combination of a coin-actuated revolving bucket-wheel, of a dial revolving with the shaft of the bucket-wheel, and of an indicator-hand movable in relation to the dial, and of a vertical rotatable shaft supporting figures and driven by frictional gearing from the bucket-wheel shaft; with a pendulum actuated in swinging by the coin in falling and carrying a cross-arm on which are mounted figures which are vibrated with the pendulum, combined and arranged substantially as shown and described.

6. The combination of a bucket-wheel car-

rying an indicator or display and mounted to be revolved by a coin in falling, of a vertical shaft carrying figures and mounted to be revolved from the bucket-wheel, with a pendulum supporting figures and mounted to be swung by the coin in falling, combined and arranged whereby the three sets of displays are operated by the falling of the coin as is shown.

Witness our hands and seals, this 1st day of May, 1897, in the presence of two subscribing witnesses.

JOSEPH NICHOLS. [L. S.]
JOHN HENRY DAVIS. [L. S.]

Witnesses:

W. E. WILLIAMS,
FRANK H. DEANE.