

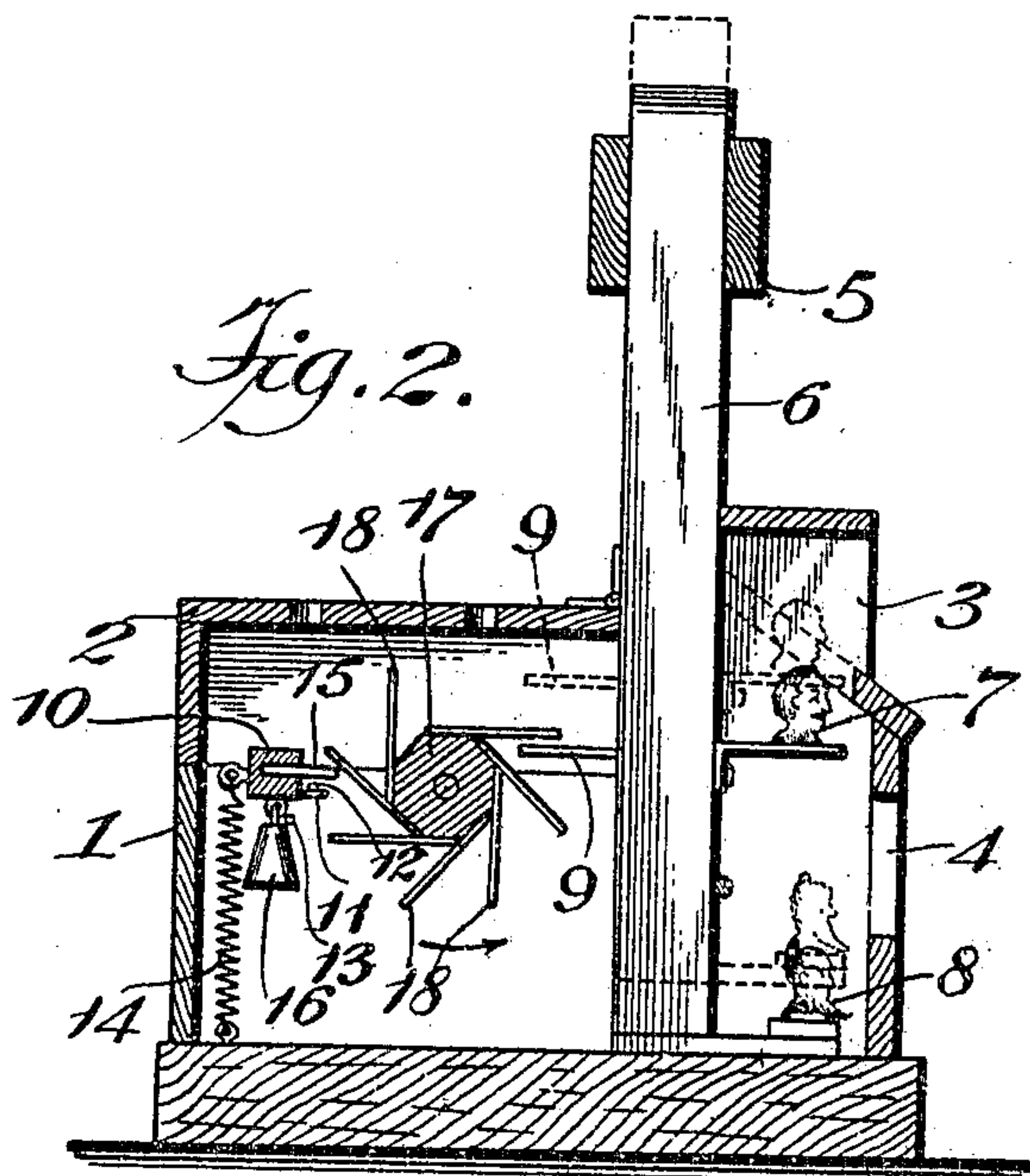
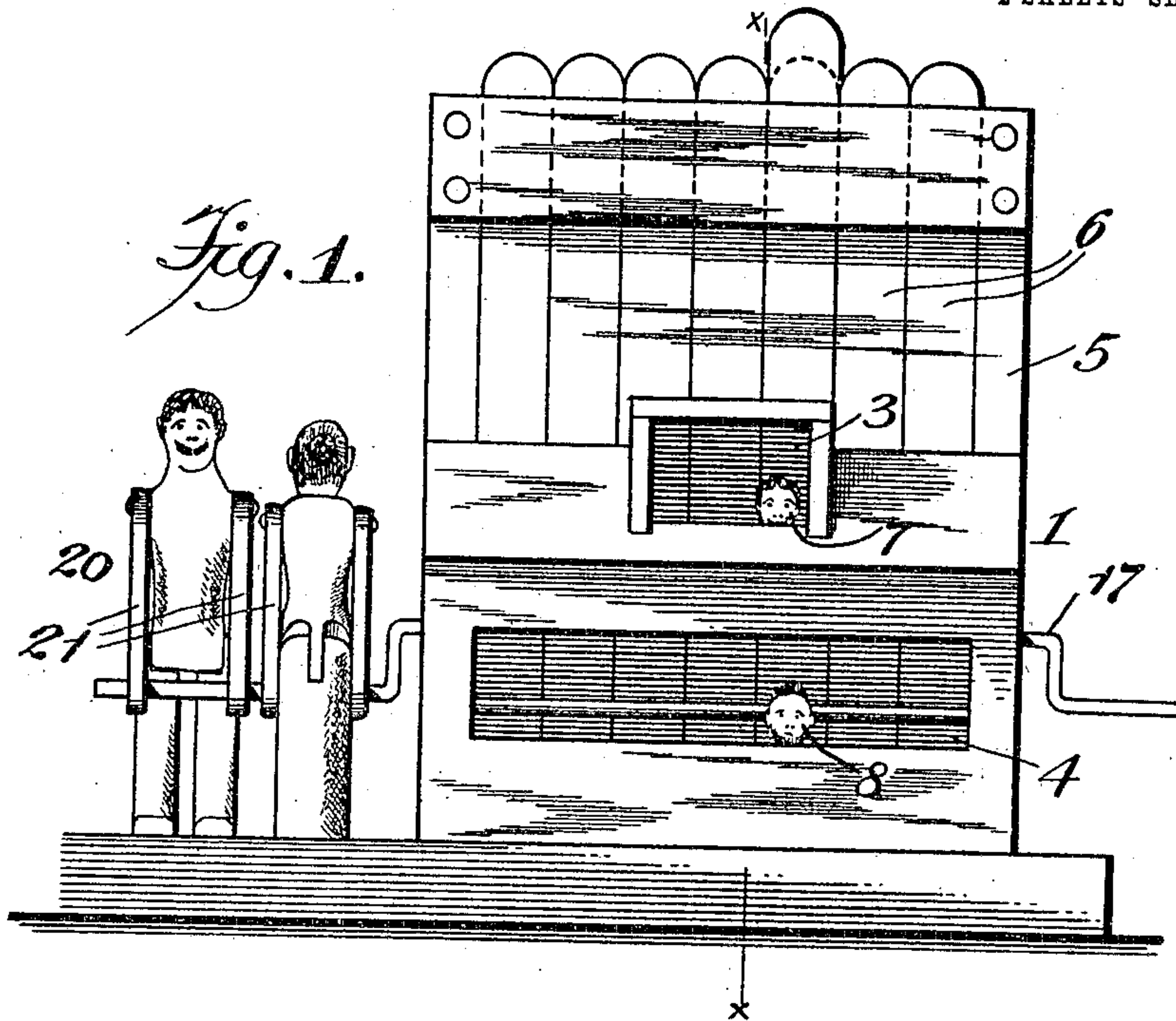
No. 819,051.

PATENTED MAY 1, 1906.

A. C. FECHTIG.  
MUSICAL TOY.

APPLICATION FILED APR. 29, 1904.

2 SHEETS—SHEET 1.



Witnesses  
*A. Appleman*  
*B. Mohitor*

Inventor  
*Albert C. Fechtig*  
By his Attorney, *J. R. Little*

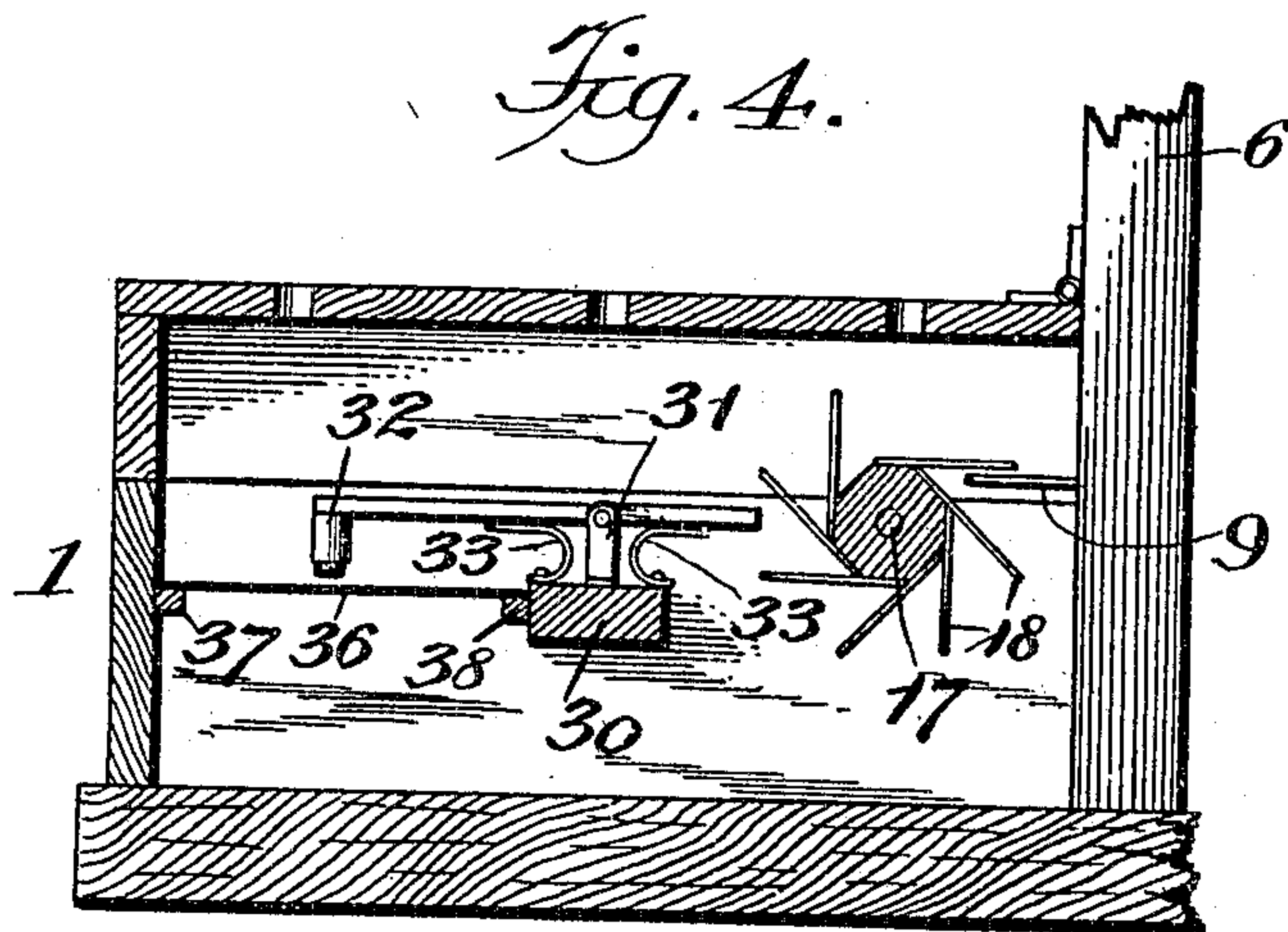
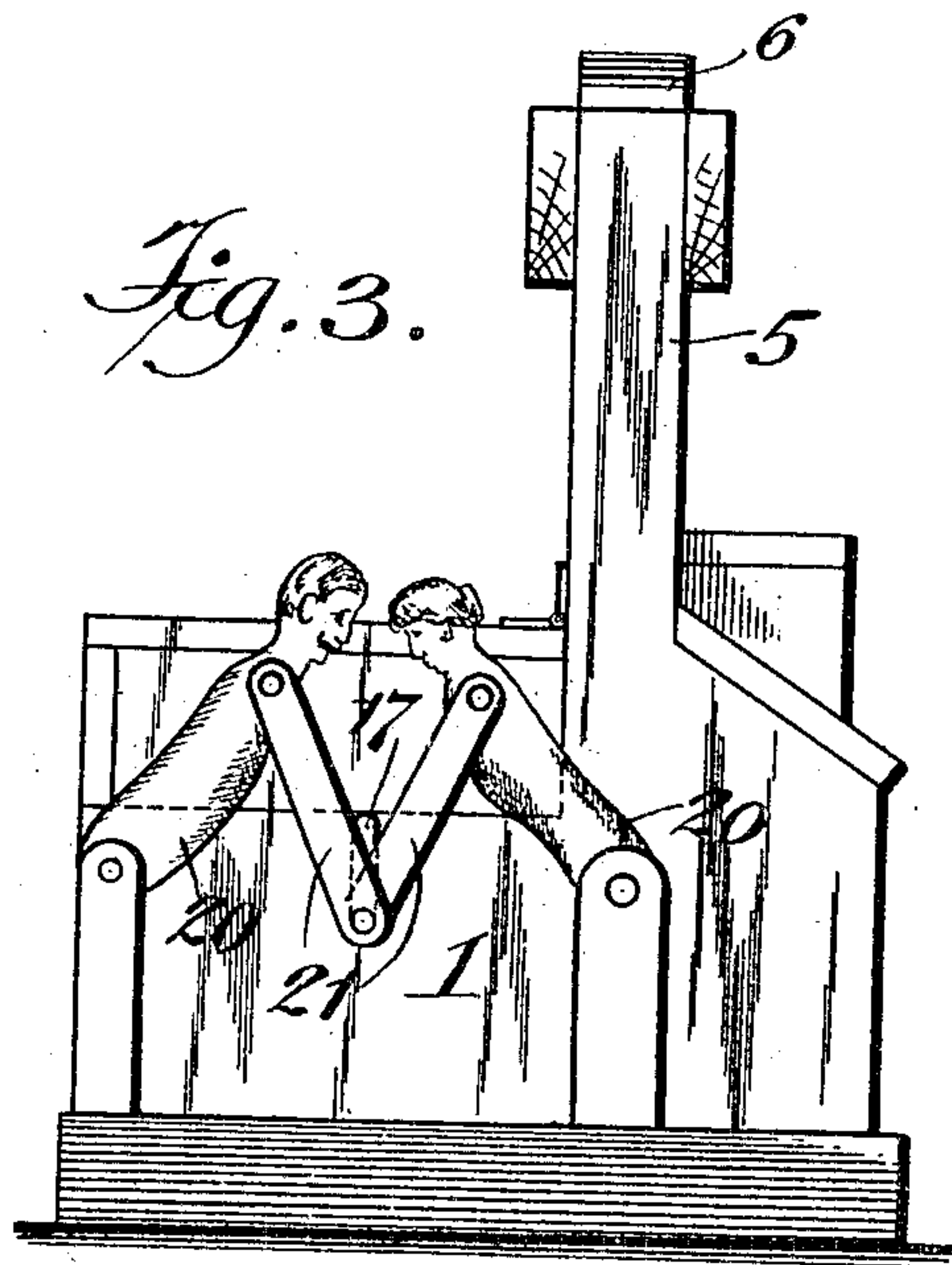
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# UNITED STATES PATENT OFFICE.

ALBERT C. FECHTIG, OF NEW YORK, N. Y.

## MUSICAL TOY.

No. 819,051.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed April 29, 1904. Serial No. 205,453.

*To all whom it may concern:*

Be it known that I, ALBERT C. FECHTIG, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Musical Toys, of which the following is a specification.

My invention relates to musical toys.

It has for its object to provide a musical toy adapted to produce various musical combinations of tones and in connection with the sounding of the tones the appearance of one or more of a plurality of heads or figures before an opening or openings in a casing, and their disappearance therefrom.

It has for a further object to provide a device of the character described embodying advantages in point of simplicity, inexpensiveness, and general utility.

In the drawings, Figure 1 is a front elevation. Fig. 2 is a vertical sectional view taken on the line *xx* of Fig. 1. Fig. 3 is an end view, and Fig. 4 a vertical sectional view, of a modification.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates a casing, provided with a cover 2 at the rear, affording means of access to the interior thereof, upper and lower openings 3 and 4, respectively, at the front, at which the heads to be described are adapted to appear, and an open frame 5, projecting upwardly from the top of the casing. A plurality of reciprocal vertical bars 6 are supported within and guided by said frame, the two bars adjacent the central bar having heads 7 secured thereto so as to come just below the top opening 3 when in their normal position, and all of said bars having heads 8 secured thereto at the bottom, so as to come just below the opening 4 when in their normal position, and pins 9, projecting therefrom into the rear of the casing.

Within the casing at the rear of the bars 6 a shaft 10 is mounted so as to have a limited degree of rotation governed by the striking of a pin 11 thereon against the pins 12 and 13 on the side of the casing and being rotated against the action of a spring 14, connected thereto and to the casing, so that when released it will be automatically returned to its normal position, said shaft 10 having a plurality of forwardly-projecting pins 15 and a plurality of bells 16 suspended therefrom.

The plurality of bells 16 may be of differ-

ent-toned quality, either by variation in size or material, so that they will respectively produce divers tones.

Intermediate the shaft 10 and the bars 6 is rotatably mounted a power-shaft 17, having a plurality of fingers 18, adapted to come into contact with the pins on the bars 6 and raise and release said bars, thereby causing one or more of the heads to appear before and disappear from the openings in the front of the case and also to come into contact with the pins on the shaft 10 and turn it to thereby ring the bells thereon.

It will be noted that the fingers 18, which contact with the pins 9 on the bars 6, are arranged so that there is one of the fingers or members 18 for each pin 9 of each bar 6 and for each pin 15 of the oscillatory shaft 10. In the present illustration I have shown seven of the bars 6, and therefore seven of the projecting finger members 18. As the rotary shaft is turned the finger members 18 respectively and successively engage the respective pins 9 upon the respective vertically-reciprocating bars 6. This engagement of the finger members 18 with the pins 9 is such that the finger member comes under the pin and in its continued movement lifts the bar until said finger member slips past the pin, thus releasing the bar 6 and allowing the same to drop by gravity. As the bars 6 drop by gravity their weight is such that they will produce a sound by contact with the base of the casing.

The ends of the power-shaft 17 which project through the casing are provided with cranks, and at one side of the casing two figures 20 are located, the pivoted arms 21 of which are connected to the crank on one side, so that as it is turned by means of the crank on the other end of the power-shaft said figures are operated.

The device shown in the modification Fig. 4 only differs from that of the other figures in that the shaft carrying the bells is omitted and a stringed musical instrument is employed in lieu thereof, which is adapted to be operated by the fingers on the power-shaft, said instrument comprising a main bar 30, having vertical bearings 31, in the upper ends of which are pivoted hammers 32, each having a spring 33 on each side of its bearing adapted to normally hold it out of contact with the strings 36 of the instrument which are stretched between bars 37 and 38.

In the modification Fig. 4 the fingers of the power-shaft will strike the shorter ends of



the hammers 32 and cause the heads to strike the strings 36, producing musical combinations of tones, and when the fingers of the power-shaft pass the hammers said hammers are returned to normal position by the springs 33.

The operation of the device will be readily understood. The crank at the right of the casing is turned, thereby turning the power-shaft 17 and operating the figures 20 at the left of the casing. As the shaft 17 is revolved the respective finger members 18 successively and respectively engage under the respective pins 9 of the respective vertically-reciprocating gravity-bars 6, thus lifting the latter in a respective successive action, which causes the heads or figures on said bars to appear above the openings in the front of the casing. As the finger members 18 pass from engagement with the pins 9 the bars 6 drop by gravity and produce a sound as they contact with the base of the casing and also cause the heads or figures on the bars to disappear from the openings in the front of the casing. At the same time the finger members 18 in their continued movement under the operation of the power-shaft 17 contact with the pins 15 on the oscillatory shaft 10 and depress the latter to its lowermost limit of movement, thus actuating the bell mechanism in a supplementary sounding operation.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaption of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

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

1. A musical toy, comprising vertically-operating reciprocally-slidable gravity-bars having rearwardly-projecting pins thereon, and a rotary shaft having fingers adapted to engage said pins and operate said bars to produce sounds by their gravity action, substantially as described.

2. A musical toy, comprising a casing having openings in the front, vertically-operating reciprocally-slidable gravity-bars having figures thereon, and means for operating said bars to produce sounds by their gravity action and cause the figures to appear before and disappear from said openings, substantially as described.

3. A musical toy, comprising a casing having openings in the front, vertically-operating reciprocally-slidable gravity-bars having fig-

ures and pins thereon, a power-shaft having fingers adapted to engage said pins and operate said bars to produce sounds by their gravity action and cause the figures to appear before and disappear from said openings, and jointed figures connected to and operated by said power-shaft, substantially as described.

4. A musical toy, comprising a casing having openings in the front, vertically-operating reciprocally-slidable gravity-bars having figures, an oscillatory shaft having bells thereon, and a power-shaft for operating said bars and bells to produce sounds and to cause the figures to appear before and disappear from said openings, substantially as described.

5. A musical toy, comprising a casing having openings, reciprocating bars having figures and pins thereon, an oscillatory shaft having bells and pins thereon, and a power-shaft having fingers adapted to engage the pins on the oscillatory shaft and bars and operate the same to produce sounds, substantially as described.

6. A musical toy, comprising reciprocating bars carrying figures or devices, an oscillatory shaft carrying bells or sounding means, and means for conjointly actuating the bars in their reciprocal movement and said shaft in its oscillating movement.

7. A musical toy, comprising reciprocating bars carrying figures or devices, an oscillatory shaft carrying bells or sounding means, and a rotary shaft intermediately between said bars and oscillatory shaft and carrying projecting means for engaging said bars and oscillatory shaft to conjointly operate the same.

8. A musical toy, comprising reciprocating bars carrying figures or devices, an oscillatory shaft carrying bells or sounding means, a rotary shaft intermediately between said bars and oscillatory shaft, and fingers projecting from said rotary shaft and engaging said bars and oscillatory shaft to operate the same.

9. A musical toy, comprising reciprocating bars carrying figures or devices, pivotally-mounted sounding means, and a rotary shaft intermediately between said bars and sounding means and provided with projecting members for engaging said bars and sounding means to operate the same.

10. A musical toy, comprising reciprocating bars carrying figures or devices, resistance means having sounding elements, a rotary shaft intermediately between said bars and resistance means, and fingers projecting from said rotary shaft and engaging said bars and sounding elements to operate the same.

11. A musical toy, comprising a series of reciprocating bars carrying figures or devices, sounding elements, a rotary shaft intermediately between said bars and sounding elements, and a plurality of radially-projecting



5 fingers extending from said rotary shaft and disposed thereon in successive operative position with respect to the succession of the series of said bars, said fingers successively and respectively engaging the bars and sounding elements to operate the same.

10 12. A musical toy, comprising a series of reciprocating bars carrying figures or devices, a resistance means having sounding elements, a rotary shaft intermediately between said bars and resistance means, and a plurality of radially - projecting fingers extending from said rotary shaft and disposed thereon in successive operative position with respect to the  
15 succession of the series of said bars, said fingers successively and respectively engaging the bars and sounding elements to operate the same.

20 13. A musical toy, comprising a series of reciprocating bars carrying figures or devices and having rearwardly - extending projections, sounding elements having a forwardly-projecting part, a rotary shaft intermediately

between the bars and sounding elements, and a plurality of radially-projecting fingers 25 extending from said rotary shaft and disposed thereon in successive operative position with respect to the respective projections comprised in the successive series of said bars, said fingers successively and respectively engaging the respective fingers of said bars and the projecting part of the sounding elements to operate the same.

14. A musical toy, comprising reciprocating bars carrying figures or devices, resistance means, a rotary power-shaft, and fingers 35 radially projecting from said shaft and engaging said bars and resistance means.

In testimony whereof I have signed my name in the presence of the subscribing witnesses. 40

ALBERT C. FECHTIG.

Witnesses:

B. MOLITOR,  
WILLIAM GRAVES.