A. W. PRESSLER.

ANIMATED TOY.

APPLICATION FILED MAY 4, 1909.

953,289.

Patented Mar. 29, 1910.

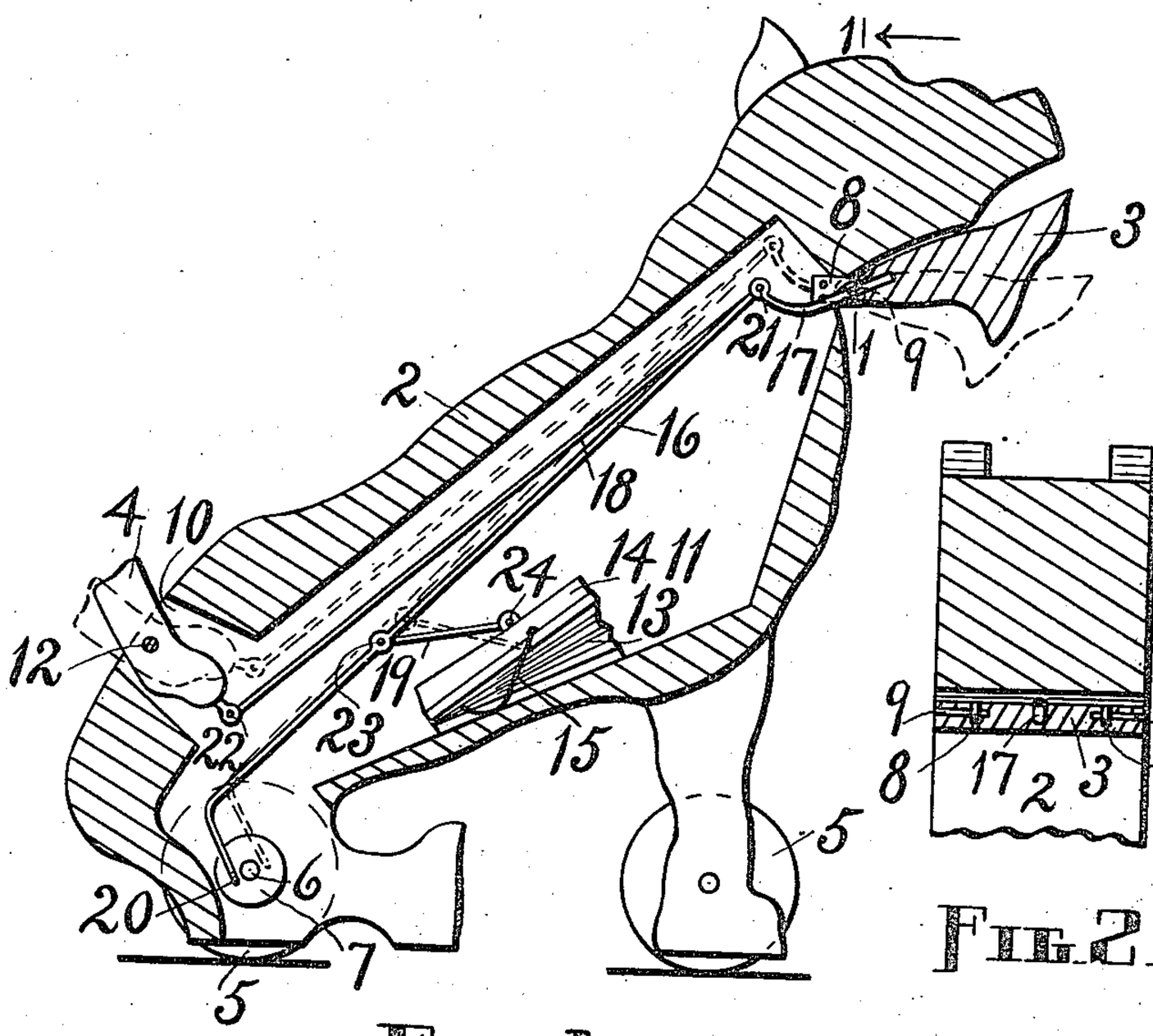

FIG. 1.

FIG. 2.

Fig. 4.

FIG. 3.

WITNESSES:

H. H. Cutter.

J. M. Sterne

INVENTOR.

Adolf W. Pressler,

BY

Webster & Co.,

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ADOLF W. PRESSLER, OF KEENE, NEW HAMPSHIRE.

ANIMATED TOY.

953,289. Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed May 4, 1909. Serial No. 493,977.

To all whom it may concern:

Be it known that I, ADOLF W. PRESSLER, a citizen of the United States of America, residing at Keene, in the county of Cheshire and State of New Hampshire, have invented a new and useful Animated Toy, of which the following is a specification.

My invention relates to improvements in toys, mounted on wheels, which simulate animals, birds, and the like and are designed to be drawn along the ground or floor, by means of a cord or string, and when drawn about to have certain members move independently in a more or less realistic manner and to emit noises or sounds somewhat after the manner of the creatures simulated.

The object of my invention is to provide a toy of the class described above with cheap and simple means or mechanism for producing the desired movement on the part of one or more of its members and the desired sound whenever such toy is drawn along on its rollers or wheels, such means or mechanism being at the same time both practicable and efficient.

A further object of this invention is to produce a very inexpensive but serviceable and highly amusing toy for young children, which while possessing the features above noted is not easily broken or disabled as are many of the animated, mechanical, or automatic toys now quite extensively used.

In carrying out my invention I employ a hollow body, pivot the movable member or members thereto and locate the sound-producing device therein, and connect such member or members and such sound-producing device by means of suitable rods with a crank-disk tight on the inner end of a short shaft upon the outer end of which one of the wheels or rollers of the toy is tightly mounted.

I attain the objects and secure the advantages of my invention by the means illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section through a toy dog which embodies one form of my invention; Fig. 2, a cross-section on lines 1—1, looking in the direction of the arrow, in Fig. 1; Fig. 3, a longitudinal section through a toy duck which embodies a slightly modified form of said invention, and Fig. 4, an enlarged longitudinal section through the sound producer.

Similar figures refer to similar parts throughout the several views.

Referring first to the dog, which has two movable members while the duck has only one such member, it will be observed that such dog comprises a hollow body 2 provided with a movable lower jaw 3 and a movable tail 4, and that the dog is mounted on rollers 5, there being two such rollers on each side. The dog is represented as being in a sitting posture, and one roller 5 on each side is mounted on the outside of the hind leg on that side, and the other roller on the same side is mounted on the outside of the corresponding foreleg or foot. Thus mounted on the rollers 5, the dog can be drawn about in the usual manner by means of a cord attached thereto at any convenient point.

It is immaterial how three of the rollers 5 are revolubly connected with the body 2, but the fourth roller, which in the present instance must be one of the back rollers, is on the outer terminal of a short shaft 6 journaled in one side of the body and having a crank-disk 7 on the inner terminal thereof, both of the members on said shaft being tight thereon. The operating mechanism is driven from the crank-disk 7, as presently will be explained.

Two lugs 8 extend forward from the body 2 at proper points to support the jaw 3 in its true relation to the other members, and the inner end of said jaw is slotted to receive said lugs. The jaw 3 is pivoted to the lugs 8 by means of pins 9—9 which are introduced into said jaw from the sides thereof.

A branch opening 10, from the main opening 11 in the body 2, is provided to accommodate the tail 4 which is pivoted intermediate of its ends, at 12, in such branch opening. A portion of the tail 4 extends beyond the outer end of the opening 10, as shown. Securely fastened on the floor of the opening 11, is a bellows 13 which is provided on top with a sound-producing reed-pipe 14.

15 is a light spring attached to the bellows 13 to assist in opening or expanding the same after it has been compressed to expel the air therefrom. The bellows 13 when compressed forces air into and through the reed-pipe 14 and so produces the sound that such pipe is adapted to make or emit, and it is this device that furnishes the "voice" for my toy.

The internal mechanism for actuating the movable parts consists of a main operating rod 16, an arm 17, a long connecting-rod 18, and a short connecting-rod 19, all of these members with the exception of the outer portion of said arm being in the opening 11. One end of the rod 16 is pivotally attached at 20 to the inner face of the crank-disk 7 at one side of the center or of the shaft 6, and the other end of said rod is pivotally connected at 21 with the inner end of the arm 17. The arm 17 is rigidly fastened to the jaw 3 from which it extends into the opening 11. The lower terminal of the rod 16 is bent downward and the inner terminal of the arm 17 is curved upward, so as to enable the actuating members to operate to the best advantage. The connecting-rod 18 is pivotally connected at opposite ends with the main rod 16 and the tail 4, respectively, the connection with said main rod being at 21, although such connection might be at any other point on said last-mentioned rod, and with said tail at 22. The connecting-rod 19 is pivotally connected at opposite ends with the main rod 16 and the reed-pipe 14, respectively, the connection with said main rod being at 23, and with said reed-pipe at 24.

It will now be understood that, as the roller 5 which is tight on the shaft 6 is caused to revolve by contact with the ground or floor when the dog is drawn along thereon, the main rod 16 is reciprocated through the medium of the crank-disk 7 on said shaft, and that said rod in turn actuates the jaw 3 on its pivots 9, or opens and shuts said jaw, causes the tail 4 to oscillate on its pivot 12 or wag, and works the bellows 13 to produce intermittent sounds from the reed-pipe 14, said jaw being operated from the main rod through the medium of the arm 17, said tail through the medium of the connecting-rod 18, and said bellows through the medium of the connecting-rod 19. The several movements are, of course, simultaneous and continue as long as the dog is kept in motion. The extreme positions of the movable parts are indicated by full and broken lines in Fig. 1.

The duck, shown in Fig. 3, has a hollow body mounted on rollers in substantially the same way as is the case with the dog, and said duck is designed to be drawn about in a similar manner as said dog, but in place of the movable jaw of the dog there is a movable head 25 pivoted at 26 to said body, and the sound-producer is fastened to the top of the opening 11 instead of to the bottom. The crank-disk is here present in a corresponding position, also the main operating rod pivoted to said crank-disk as before, and the short connecting-rod from said main rod to the bellows or to the reed-pipe thereof. The end of the main rod 16 which is opposite the pivotal connection 20, in the duck, is pivoted at 27 to the lower portion of the head 25 which extends into the opening 11. Now, as this duck is moved forward or backward on its rollers 5, the head 25 is caused to oscillate and the reed-pipe 14 to emit its sound, through the medium of the crank-disk, the main rod and the connecting-rod, the extreme positions of the movable parts being indicated as in the first view.

Obviously but little change is required to adapt this invention to representations of other creatures and to other members besides those herein shown and described.

As shown in Fig. 4, the bellows 13 has a bottom opening 28 and a flapper valve 29 for the admission of air to said bellows while expanding, and a top opening 30, which is in line with a corresponding opening in the bottom of the pipe 14, for the expulsion of air from said bellows into said pipe when the former is compressed; and said pipe, which is closed at one end and open at the other, has within it a hollow holder 31 for a reed 32. This reed extends from the holder 31 into that portion of the pipe 14 that is between said holder and the closed end of said pipe, and the free end of said reed is over the opening 30. In practice, the air is forced by the bellows into the pipe, when said bellows is compressed, and at the same time expelled from said pipe and causes the reed to vibrate and emit sound in the usual manner. I do not, however, wish to be confined to this particular form of sound producer.

I am aware that animated toys provided with sound-producing devices are old, and do not, therefore, seek to claim broadly such a toy or the mechanism associated therewith, but—

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in an animated toy, of a hollow body provided with a movable part pivotally attached thereto and further provided with a sound-producer having a compressible member fixed therein, rollers upon which such body is mounted, a shaft having one of such rollers tight on one end and a crank member tight on the other end, a main operating rod between said crank member and said movable part, and a connecting-rod between said main rod and said compressible member, the construction and arrangement of parts being such that frictional contact of the roller, with which the main rod is connected, with the ground or floor produces an oscillatory movement of the aforesaid movable part and compresses and expands the compressible member.

2. The combination, in a toy which simulates some living creature, of a hollow body provided with movable members pivotally

attached thereto and further provided with a sound-producer having a compressible member fixed therein, rollers upon which such body is mounted, a shaft having one of such rollers tight on one end and a crank member tight on the other end, a main operating rod between said crank member and one of said pivoted members, and connecting rods between said main rod and the other pivoted and movable members including said compressible member, the construction and arrangement of parts being such that frictional contact of the roller, with which the main rod is connected, with the ground or floor produces oscillatory movements of the aforesaid movable parts and compresses and expands the compressible member.

ADOLF W. PRESSLER.

Witnesses:
HIRAM BLAKE,
CHARLES A. MADDEN.