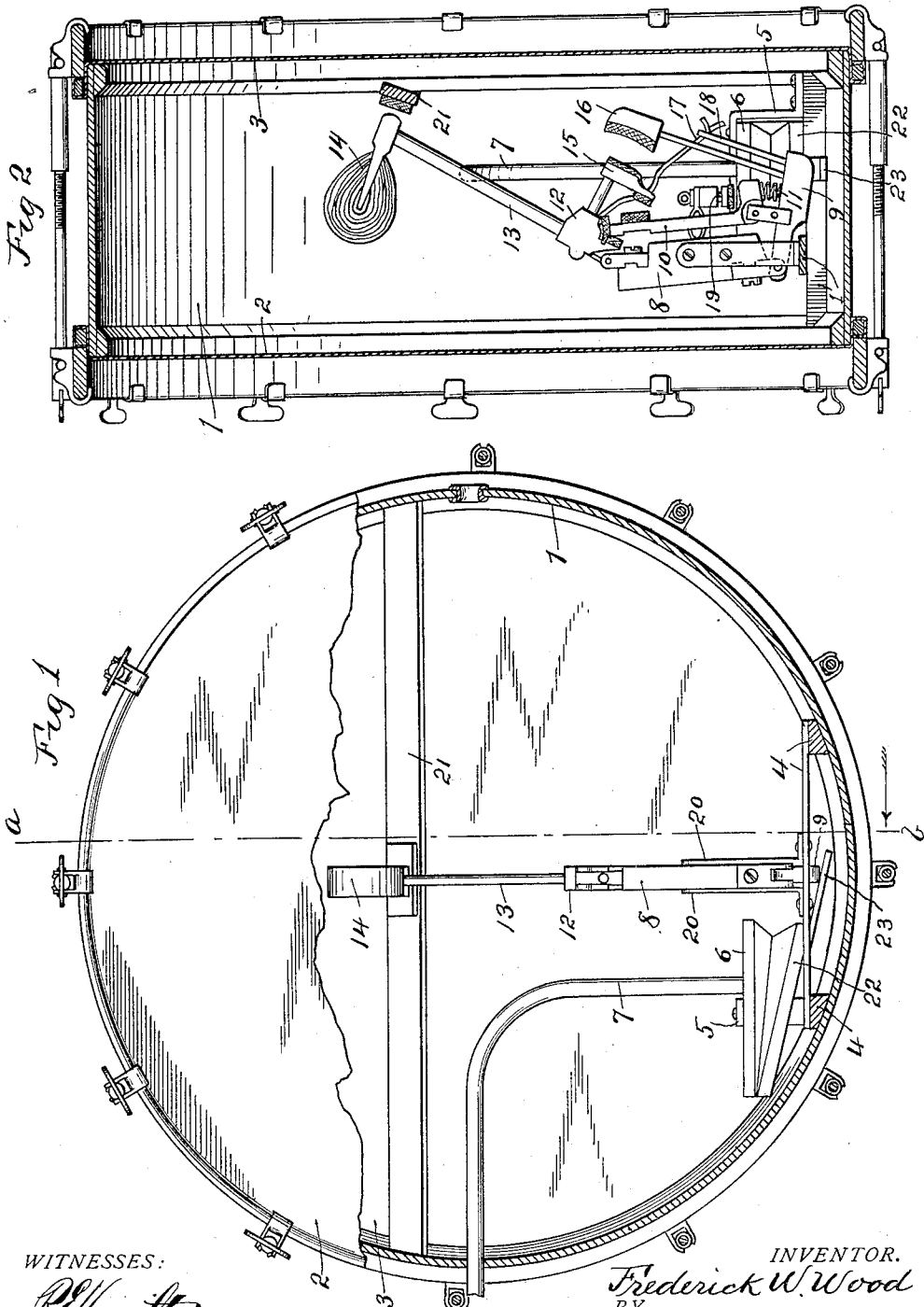


F. W. WOOD.
DRUM.

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1,055,688.

Patented Mar. 11, 1913.



WITNESSES:

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FREDERICK W. WOOD, OF KANSAS CITY, MISSOURI, ASSIGNOR TO THE BERRY-WOOD PIANO PLAYER COMPANY, OF KANSAS CITY, MISSOURI, A CORPORATION OF MISSOURI.

DRUM.

1,055,688.

Specification of Letters Patent.

Patented Mar. 11, 1913.

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To all whom it may concern:

Be it known that I, FREDERICK W. WOOD, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Drums, of which the following is a specification.

My invention relates to improvements in drums.

My invention is particularly adapted for use in automatic musical instruments, such as automatic piano players, and the object of my invention is to conserve space in the instrument and to improve the sound and playing of the drum.

My invention provides further the employment of a piano action for beating the drum.

A further object of my invention is to conserve space by locating the drum beating mechanism in the drum between the drum heads.

Other novel features are hereinafter fully described and claimed.

In the accompanying drawings illustrative of my invention, as embodied in the preferred form thereof, Figure 1 is an end view, the drum being shown partly broken away. Fig. 2 is a vertical section on the line *a-b* of Fig. 1.

Similar reference characters denote similar parts.

1 denotes the body of an ordinary drum having the usual heads 2 and 3.

For beating the drum, I preferably employ a mechanism which is located in the drum between the drum heads 2 and 3, this mechanism being preferably any suitable well known piano action of the upright type. To operate the piano action I preferably employ an actuating mechanism controlled by fluid pressure.

In the drawings I have shown the body 1 of the drum disposed horizontally and supporting on its inner side a base 4, which supports a right angled bracket 5 secured to and supporting the upper side of a horizontal bellows 6. For operating the bellows a tube 7 is provided. This tube has one end connected to the bellows and communicating interiorly therewith, the other end being connected to some suitable vacuum producer or air pump, not shown. The tube 7 extends through the wall of the body 1, as

shown in Fig. 1. An ordinary tracker bar, not shown, may communicate with the tube 7 for controlling the pneumatic or bellows 6.

The piano action illustrated in the drawings consists of a rail 8, a wippen pivoted thereto, designated by 9 and pivotally supporting a jack 10 which rests upon a jack spring 11 supported by the wippen 9; the jack 10 is adapted to support and swing a butt 12 pivoted to the rail 8 and supporting a hammer shank 13, which in turn supports a beater comprising the hammer 14, which is adapted to strike the head 2 of the drum. The butt 12 carries a catch 15 adapted to strike the back check 16 which is supported by the wippen 9. To the butt 12 is secured a bridle-tape 17 which is secured to a post 18 carried by the wippen 9. Supported by the rail 8 is a regulating screw 19, of the ordinary type, for regulating the movement of the jack 10. The above parts of the action are supported on the base 4 by two brackets 20 which are secured to the base and to the rail 8. At the rear of and adapted to be struck by the hammer 14 is a hammer rest rail 21 the ends of which are supported by the body 1.

For operating the above described piano action, the lower vertically swinging member 22 of the bellows 6 has secured to it an arm 23 which is adapted when the bellows is collapsed and the swinging member 22 of the bellows upwardly swung, to strike the under side of the wippen 9, thereby swinging the hammer 14 against the drum head 2, through the intermediacy of the hammer shank 13, butt 12, jack 10 and jack spring 11. After striking the drum-head 2 the hammer 14 is retracted quickly, through the operation of the mechanism in the manner well known, to the position shown in Fig. 2.

To enable the atmospheric pressure to swing upwardly the swinging member 22 of the bellows 6 to operate the piano action as above described, any suitable means may be employed to exhaust the air from the bellows 6 through the tube 7. Such means are well known and do not need description.

I do not limit my invention to the specific structure shown and described, as many modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

Having thus described my invention, what

I claim and desire to secure by Letters Patent, is:—

1. The combination with a drum having a head, of a piano action located in the drum and having a hammer adapted to strike the head, and a pneumatic located in the drum for operating the piano action.
2. The combination with a drum having two heads, of a piano action having a hammer adapted to strike the inner side of one of the drum heads, the piano action being located in the drum between the heads, a bellows located in the drum between the heads and having means for actuating the piano action, and a tube connected with the bellows and extending through the wall of the drum for conducting fluid.

3. The combination with a drum having two heads, of a beater located in the drum between the heads and adapted to strike the inner side of one of the drum heads, a bellows located in the drum between the drum heads and having means for operating the beater, and a tube connected with the bellows and extending through the wall of the drum for conducting fluid.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

FREDERICK W. WOOD.

Witnesses:

E. B. HOUSE.

WARREN D. HOUSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."