Oct. 26, 1926. 1,604,381

R. W. BROWN ET AL

PUSH WHEEL

Filed July 31, 1925

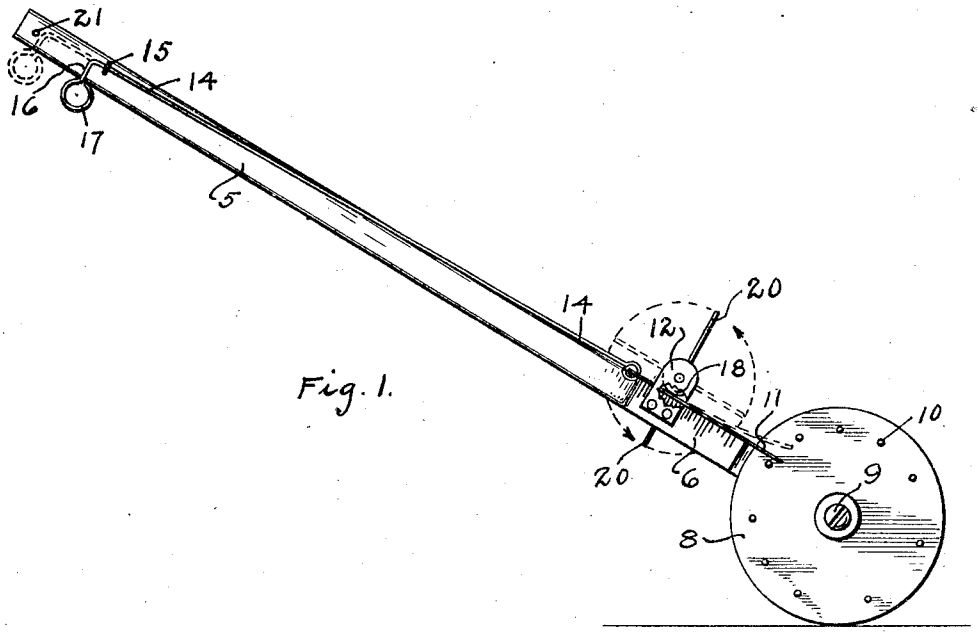


Fig. 1.

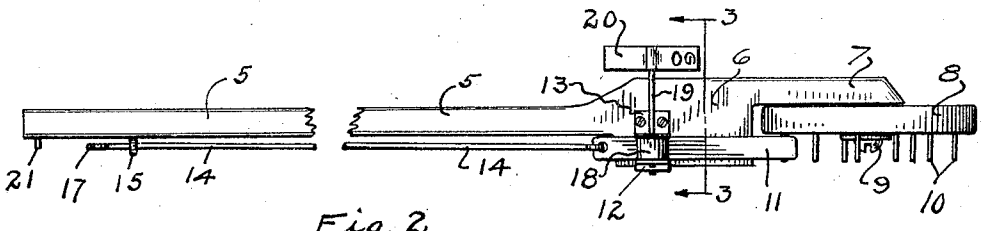


Fig. 2.

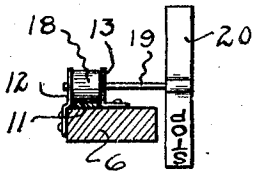


Fig. 3.

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UNITED STATES PATENT OFFICE.

ROBERT W. BROWN AND ROBERT O. BROWN, OF INDIANAPOLIS, INDIANA.

PUSH WHEEL.

Application filed July 31, 1925. Serial No. 47,222.

Our invention relates to a toy and has for its principal object, the means whereby a wheel may be pushed about and a distinctive sound created by the operation of the wheel. Further objects reside in the ability to control the sound, as by stopping it entirely or allowing it to sound at will, and in the extreme simplicity and low cost of production of the toy.

We accomplish such objects by the means as illustrated in the accompanying drawing, in which—

Fig. 1 is a side elevation of our push wheel; Fig. 2, a top plan view; and Fig. 3, a vertical section taken on the line 3—3 in Fig. 2.

Like characters of reference indicate like parts in the different views of the drawing.

We form a handle 5 with a head 6 having an offset forwardly projecting wheel support 7, to the inner side of which, the wheel 8 is rotatably secured by means of the screw 9. A through bolt may be used in place of the screw 9 if desired.

Inserted in the face of the wheel, we position a plurality of pins 10. A reed 11, made of wood or metal as production and cost conditions may warrant, is slidably carried on the upper face of the head 6 between the brackets 12 and 13, and the reed 11 is held snugly against the head 6 by means of a roller 18 pressing upon the reed 11. The roller 18 is rigidly mounted on the shaft 19 passing rotatably through the brackets 12, and 13 transversely of the reed 11.

The shaft 19 extends beyond the head 18 to one side and rigidly carries the "stop and go" signal arm 20.

The reed 11 projects forwardly from the head 6 such that it extends beyond the circle of the pins 10. To the rear end of the reed 11 we secure a control rod 14 which is carried back to near the upper end of the handle 5 and slidably secured thereon by the bracket 15. The end of the rod 14 is bent downwardly behind the bracket 15 to form the section 16 which terminates in a finger control ring 17. The section 16 serves as a stop to limit the travel of the reed 11 beyond and into the circle of the pins 10, and a pin 21 limits the backward travel of the reed 11 by contacting the rod section 16.

In operating the push wheel, the hand grasps the upper end of the handle 5 with the index finger passed through the ring 17. The wheel 8 is pushed ahead in a clockwise direction of rotation such that as each pin 10 contacts the reed 11, the reed 11 is lifted upwardly and allowed to slip off each pin 10 and strike the head 6 a blow with a sharp clack, the travel of the reed 11 being indicated by the dotted lines in Fig. 1. By varying the spacing between the pins 10, a variety of sound effects are had. To stop the sound entirely, the operator merely has to contract his index finger thus pulling the reed 11 back out of range of the pins 10, and the reed so operated may be controlled at will to sound only when desired.

When the reed 11 is pushed ahead to be contacted by the pins 10, being in the normal operating position to satisfy the childish mind for noise making, the roller 18 is revolved by the travel of the reed 11 so as to turn the arm 20 to bring the "go" signal upright, as indicated in Fig. 1. When the ring 17 is pulled back to bring the reed 11 away from the pins, the arm is correspondingly revolved to bring the "stop" signal upright.

Having described our invention in the form now best known to us, we desire to make it known that the structure is capable of many variations without departing from the spirit of the invention, and we therefore do not want to be limited to the precise structure as shown, nor any more than may be required by the following claims.

We claim:

1. The combination of a handle, a wheel rotatably mounted on the handle, a plurality of pins projecting from the wheel, a reed secured to said handle, means to slide said reed along into and out of contact with said pins, and signal means operative by the sliding movement of said reed.

2. The combination of a handle, a wheel on the handle, pins on the wheel, a reed adapted to be raised by the pins, brackets directing the reed, a roller carried by the brackets and contacting said reed to maintain one end of the reed in sliding contact

with the handle, and a pull rod secured to the reed.

3. The combination of a handle, a wheel on the handle, pins on the wheel, a reed vibrated by the pins, brackets directing the reed, a control rod adapted to relieve the reed from pin contact, a roller contacting the reed, a shaft extending from the roller, and a signal arm carried on the shaft.

In testimony whereof we affix our signatures.

ROBERT W. BROWN.
ROBERT O. BROWN.