April 18, 1933. J. KERSTEN 1,904,028

TOY

Filed Dec. 15, 1930

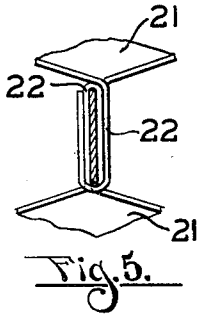


Fig. 5.

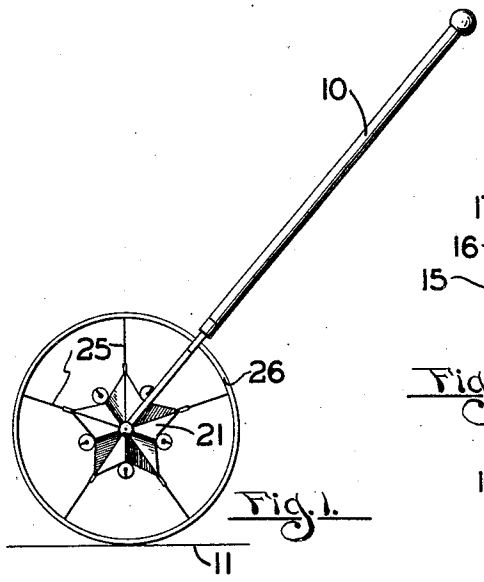


Fig. 1.

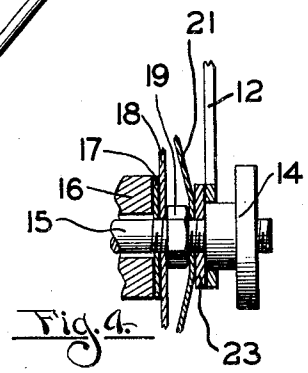


Fig. 4.

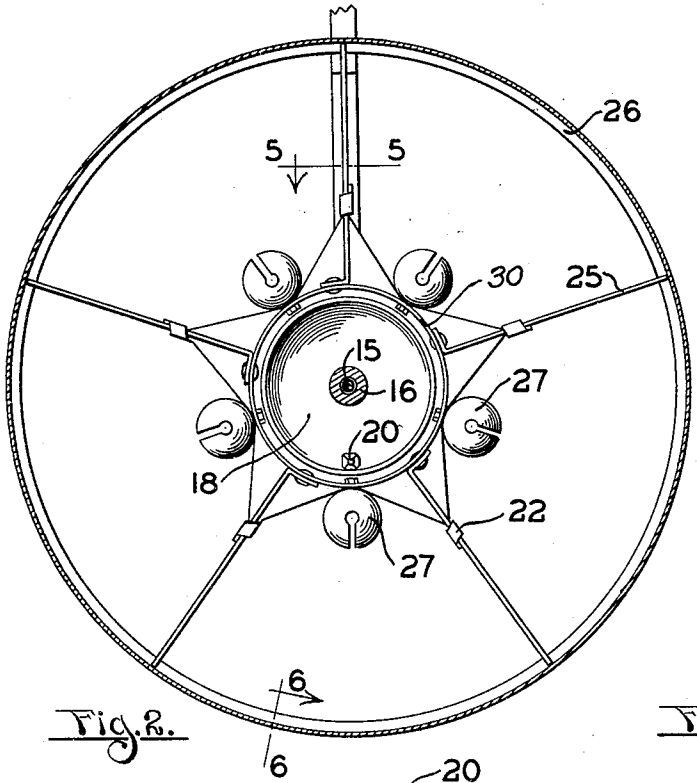


Fig. 2.

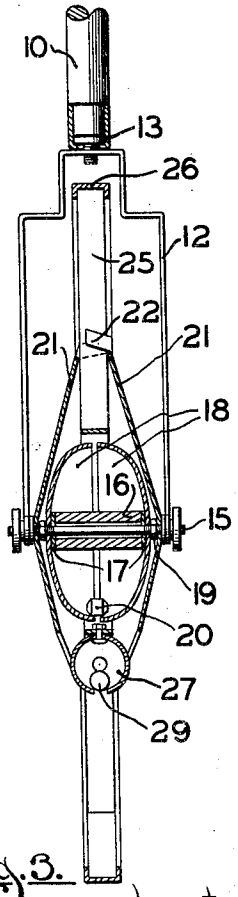


Fig. 3.

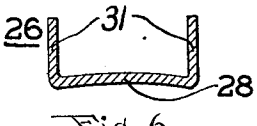


Fig. 6.

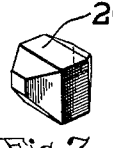


Fig. 7.

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1,904,028

UNITED STATES PATENT OFFICE

JACOB KERSTEN, OF KALAMAZOO, MICHIGAN

TOY

Application filed December 15, 1930. Serial No. 502,373.

This invention relates to improvements in toys of that class embracing a wheel to which is attached a bell or bells arranged for operation by the turning of the wheel.

One defect of toys of this character is that they are rather expensive to manufacture and another defect is that they emit only a single tone. Now, it is the aim of my invention to produce a device which will be extremely simple and cheap to manufacture and which will give forth two distinct tones or notes of different pitch which will harmonize together to produce an agreeable sound in preference to the monotony of a single tone device.

Furthermore, my invention consists in the details of construction and in the combination and arrangement of several parts of my improved toy whereby certain important advantages are attained and the device is rendered simplier, less expensive and otherwise more convenient and advantageous for manufacture, all as will be hereinafter more fully set forth.

The novel features of the invention will hereinafter be definitely claimed.

Referring to the drawing:—

Fig. 1 is a side view of my invention showing it ready for operation.

Fig. 2 is an enlarged side view, parts being broken away in order to clarify the disclosure.

Fig. 3 is a view in cross section taken substantially on a vertical section through Fig. 2.

Fig. 4 is an enlarged view showing the detail of the end of the axle assembly.

Fig. 5 is a view taken along the plane of line 5—5 of Fig. 2.

Fig. 6 is a cross sectional view of the rim taken along the line 6—6 of Fig. 2, and

Fig. 7 is a perspective view of the tumbler unit or block.

Similar numerals represent similar parts throughout the several views.

As shown in Fig. 1, 10 indicates a handle adapted to be grasped by the child or operator of the musical toy whereby the device is rolled or trundled over the floor 11 thus causing it to send forth musical sounds due to the bell units or the like thereon. The handle member 10 has a yoke member 12 rigidly fastened thereto as at 13. The lower ends of either side of the yoke members have openings therein adapted to receive the smaller cylindrical portion of the threaded members 14, these members being threadedly engaged upon the axle member 15.

As clearly shown in Figs. 3 and 4 a wooden block 16 surrounds the axle member 15, metal washers 17 being positioned at both ends thereof. Bell units 18, which are preferably formed in identical shape, are placed adjacent the washers 17 and are firmly located thereagainst by means of nuts 19. A tumbler unit 20, see Fig. 7, is located between the bell members 18.

Adjacent to the nuts 19 are positioned supporting and shielding members 21, these members having flaps 22 which are adapted to be bent to encircle the spokes 25. See Figs. 2 and 5. Washers 23 are immediately adjacent the members 21 and are firmly held thereagainst by the application of the threaded nuts 14.

The spokes 25 are fastened to an inner rim 30 which in turn supports the auxiliary bells 27, as clearly shown in Figs. 2 and 3. The outer ends of the spokes 25 are fastened to the outer rim member 26, this rim member having inwardly extending flanges 31 and being slightly curved inwardly at its center portion as indicated by the reference character 28, see Fig. 6. This particular shaping of the rim makes for efficient traction thereof.

From the above description it will be seen that the yoke member 12 is free to turn upon the members 14 thus allowing the entire assembly to rotate or roll along the ground or floor. The shielding members 21, star shape, as shown, transmits the force from the rim of the wheel to the axle 15 and hence prevent any distortion of the main bell unit from taking place. Hence, as the wheel is revolved, the tumbler 20 rolls around interiorly of the bell unit and produces tones by striking thereon. Simultaneously the operation of the auxiliary bells occur due to the circular tumblers 29 acting in the usual manner.

From the above it will be seen that I have created a device which is not only efficient and satisfactory in operation but which is also easily constructed and hence, without limiting myself to the particular embodiment herein illustrated and explained, I desire to protect my invention in the following claims.

I claim:

1. A device of the class described comprising, an outer rim 26, spokes 25 extending inwardly therefrom, two axially spaced shield members 21 having means 22 fastened to the spokes, an axle 15 extending between the shield members, a bell unit 18, 20 mounted on said axle between said shield members, and a yoke member 12 mounted upon the ends of the axle.

2. A toy adapted to be moved over the floor, comprising, an outer rim, an inner rim structure, flat spokes extending therebetween, an axle, a spacer block surrounding said axle, bell units upon said axle, means for holding said bell units against the opposite ends of the said spacer block, shielding means mounted upon the axle at either end thereof and extending radially and being fastened to the several spokes whereby the axle is supported centrally of the said outer rim, a bifurcated yoke extending over the outer rim and having openings in its ends whereby they are loosely received over the ends of the said axle, and maintaining means engaged on either end of the said axle, abutting against the outer sides of said shielding means whereby the said shielding means is held in position, said retaining means also snugly engaging within the openings in the said yoke whereby they are maintained in position and also revolubly mounted on the said axle.

3. In a toy of the class described having an outer rim and an inner rim together with spokes therebetween, the combination of two axially spaced star-shaped members having bendable flaps extending radially at a plurality of points thereon, said flaps being attached to the said spokes, an axle member extending between said shield members and solely supported thereby, a bell unit mounted on said axle intermediate said star-shaped members and a yoke member mounted exteriorly of said star-shaped members upon the said axle.

In testimony whereof I affix my signature.

JACOB KERSTEN.