July 15, 1958 R. M. GERAGHTY 2,843,075

ALARM DEVICE

Filed May 23, 1957

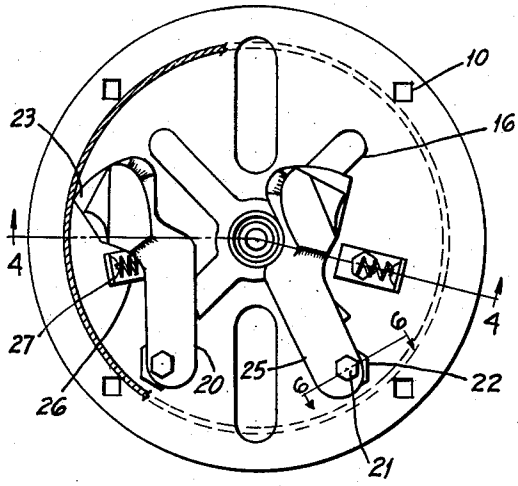


Fig. 3

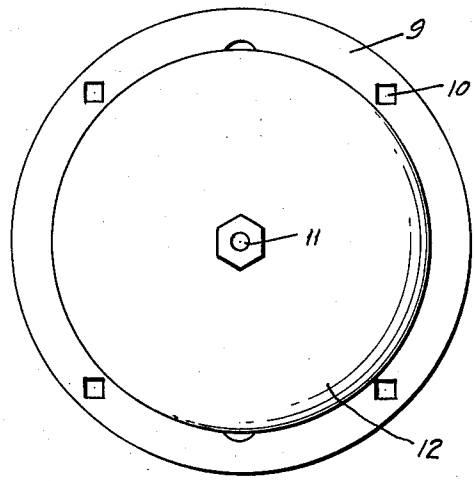


Fig. 1

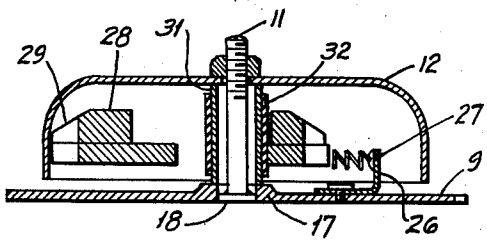


Fig. 4

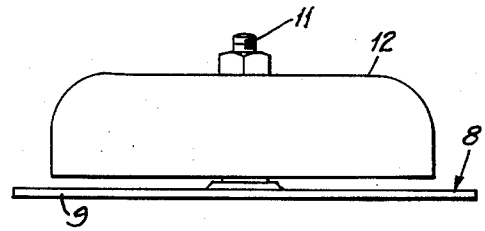


Fig. 2

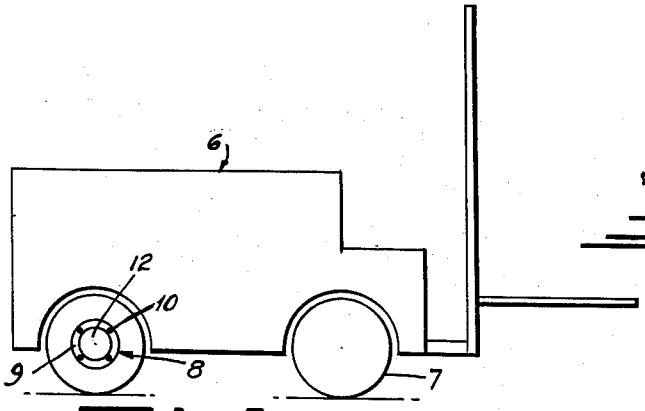


Fig. 5

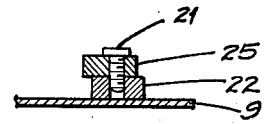


Fig. 6

INVENTOR.
Robert M. Geraghty
ECKHOFF & SLICK
ATTORNEY
BY Robert O. Geraghty
A MEMBER OF THE FIRM

United States Patent Office

2,843,075

Patented July 15, 1958

2,843,075

ALARM DEVICE

Robert M. Geraghty, San Francisco, Calif., assignor, by mesne assignments, to Max Von Radics and William Bookwalter

Application May 23, 1957, Serial No. 661,216

2 Claims. (Cl. 116—60)

This invention relates to an alarm device, particularly a device adapted to be mounted upon a vehicle wheel to provide an alarm when the vehicle is moved in either direction.

It is in general the broad object of the present invention to provide a novel, simple and improved alarm device providing an audible alarm upon movement of the vehicle in any direction.

A further object of the present invention is to provide an alarm device structure which is adapted to be mounted upon a rotatable member to give an audible sound when the member is rotated.

The invention includes other objects and features of advantage, some of which, together with the foregoing, wherein the present preferred form of alarm device is shown, are set forth. In the drawing accompanying and forming a part hereof,

Figure 1 is a plan view, showing the assembled device.

Figure 2 is a side elevation of the device shown in Figure 1.

Figure 3 is a plan view of the device with the sounding bell removed.

Figure 4 is a section taken along the line 4—4 in Figure 3.

Figure 5 is a side elevation of a typical vehicle showing the device in place.

Figure 6 is a section along the line 6—6.

Referring to the drawings and particularly to Figure 5 thereof, a fork lift truck 6 is shown as typical of a vehicle to which the alarm device is particularly suited. The truck includes several wheels 7 and, upon one of these, an alarm device, generally indicated at 8, is mounted concentrically with the wheel, the wheel being typical of a rotatable member suited for attachment of the alarm device.

The alarm device 8 includes a flat circular base plate 9 having a stud 11 fixed centrally of the plate and projecting from the plate to provide a support for a bell cover 12. Provided about the periphery of the plate 9 are several recesses 10 to permit of attachment of the device to the wheel or other rotatable member. The plate is provided with ribs 16 extending radially of the plate to provide adequate stiffness at the common meeting place of the ribs 16. Centrally of the plate a recessed area 17 is provided to receive a terminal head 18 on the stud 11.

Hammers 20 and 25 are pivotally mounted upon the plate, this being achieved by threaded studs 21 extending through the hammers and being received within threaded supports 22 mounted upon the plate 9 (Figure 6), Each hammer includes a bell striking end 23, which strikes the bell forcibly upon rotation of the plate 9. To prevent the hammer from acting as a mute against the bell, a spring 26 is cooperatively positioned adjacent each hammer, each spring being mounted upon an

L-shaped clip 27 attached to the plate 9. Each hammer includes a weight 28 attached thereto, the weight being suitably relieved at 29 to permit it to pass freely adjacent to the bell.

To support the bell cover 12 in spaced relation to the plate, a sleeve 31 is provided about the stud and a resilient facing 32 is provided upon the sleeve to receive the hammers when these drop inwardly.

In the device shown, a pair of hammers is shown as mounted generally in the same side of the plate. In operation, the rotating member upon which the device is mounted rotating in a clockwise direction, hammer 25 will rest in against the resilient surface 32 on the sleeve 31 during a portion of the rotation of the device, the hammer being shown in this position in Figure 3. As the device continues to rotate, hammer 25 will be released from the position in which it is shown in Figure 3 and will fall outwardly under the force of gravity to strike the bell a sharp blow as the hammer descends. The ball of the hammer is cushioned by the spring 26, which serves to provide for the continued clear ringing of the bell. In the meantime, hammer 20 has fallen in against the sleeve, in which position it remains until it, too, falls away from the sleeve under the pull of gravity to strike the bell 8 a sharp blow.

When the device is rotated counter-clockwise, the same action occurs, but in reverse order, the hammers falling in against the sleeve during a portion of the rotational travel and against the bell during another portion of such travel.

From the foregoing, I believe it will be apparent that I have provided a novel, simple and improved alarm device which is simple and rugged in operation, has few moving parts and which, in use, will require a minimum of attention.

I claim:

1. An alarm for a vehicle wheel comprising: a plate for vertical mounting on a wheel for rotation therewith, a bell mounted over said plate by means of a centrally positioned stud, a plurality of hammers pivotally mounted on the plate beneath said bell, resilient means mounted on said plate for returning each hammer to a predetermined position away from said bell during its travel upward with the wheel, each of said hammers being of such a length and being so positioned as to be supportable by said stud during downward travel of said hammer until a substantially upright position is reached, each hammer being engageable by gravity with said bell against resistance offered by said resilient means during said hammer's downward travel with the wheel.

2. An alarm for a vehicle wheel comprising: a plate for vertical mounting on a wheel for rotation therewith, a bell mounted over said plate by means of a centrally positioned stud, a hammer mounted on the plate beneath said bell, resilient means on said plate for returning said hammer to a predetermined position away from said bell when turned upward with a wheel, said hammer being of such a length and so proportioned as to be supportable by said stud during downward travel of said hammer until a substantially upright position is reached, said hammer being engageable with said bell by gravity against resistance offered by said resilient means during said hammer's downward travel with said wheel.

References Cited in the file of this patent

UNITED STATES PATENTS

391,108	Atkinson	Oct. 16, 1888
1,225,036	Kieren	May 8, 1917
2,807,229	Bookwalter	Sept. 24, 1957