Nov. 17, 1931. R. E. KENNEDY 1,832,127

CHUCK FOR BOWLING BALLS

Filed Feb. 11, 1929 2 Sheets-Sheet 1

Fig. 1

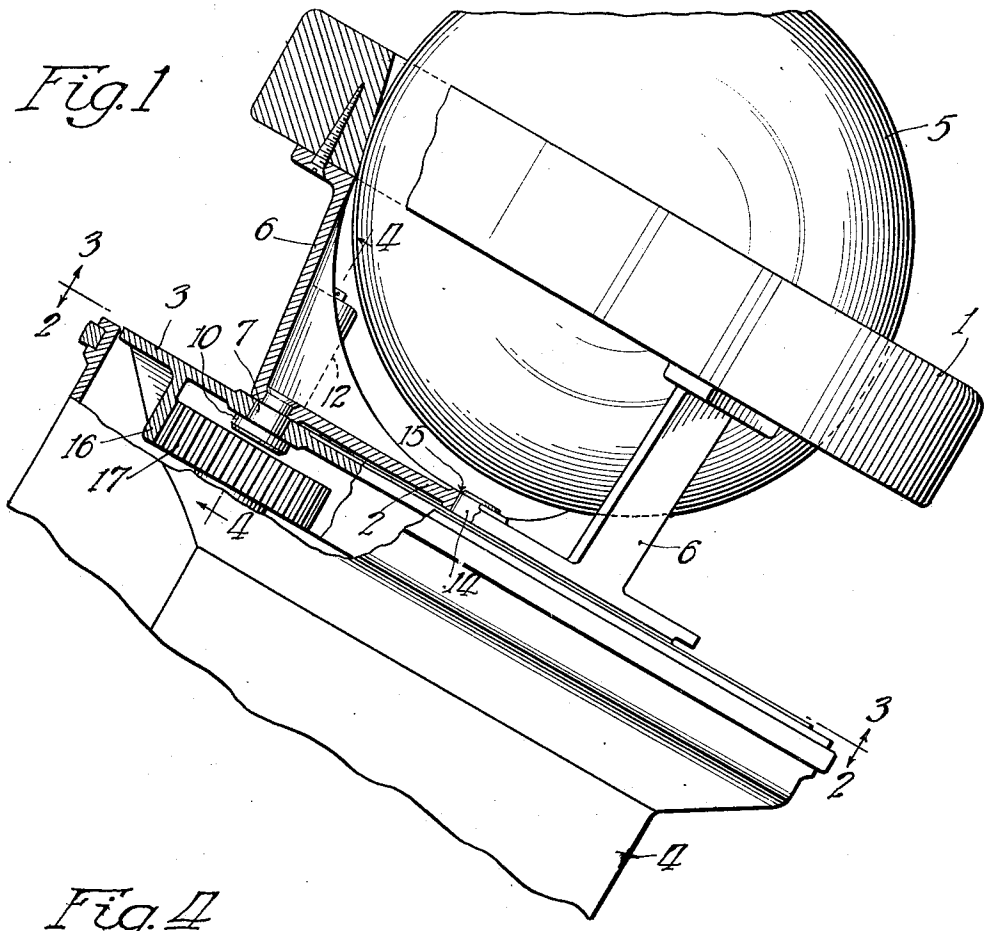


Fig. 4

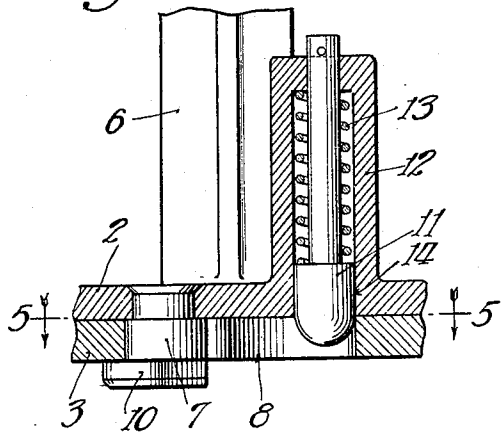
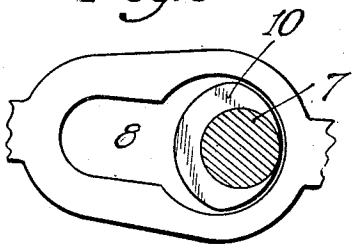


Fig. 5



Inventor
Robert E. Kennedy
By: James P. Shea Atty.

Nov. 17, 1931. R. E. KENNEDY 1,832,127

CHUCK FOR BOWLING BALLS

Filed Feb. 11, 1929 2 Sheets-Sheet 2

Fig. 2

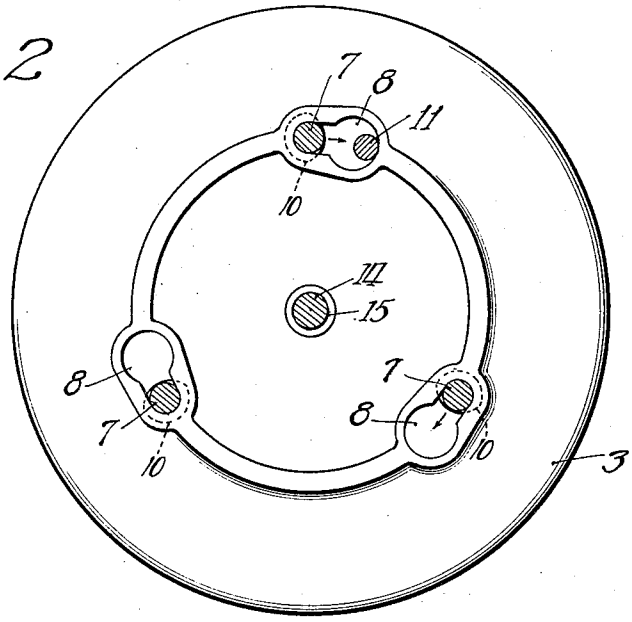
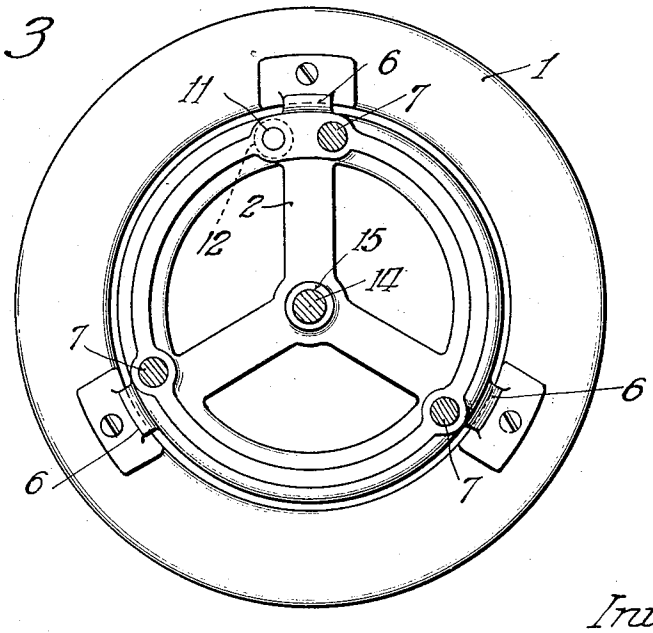


Fig. 3



Inventor
Robert E. Kennedy
By James P. Shea Atty.

Patented Nov. 17, 1931 1,832,127

UNITED STATES PATENT OFFICE

ROBERT E. KENNEDY, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE BRUNSWICK-BALKE-COLLENDER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE

CHUCK FOR BOWLING BALLS

Application filed February 11, 1929. Serial No. 339,209.

My invention relates to chucks for rotating bowling balls to facilitate cleaning them, and has a special relation to devices for supporting and rotating the chuck.

One object of my invention is to provide a readily detachable means for securing a bowling ball chuck to the rotary tool holder of a floor surfacing machine.

Another object of my invention is to provide a device for detachably securing a ball chuck to the tool holder of a floor surfacing machine which is releasable by relative angular movement between the chuck and the holder, and which is provided with a releasable device for preventing such angular movement.

Other objects and advantages of my invention will appear as the description proceeds.

Referring to the accompanying drawings:

Figure 1 is an elevational view of a ball chuck and a floor surfacing machine embodying my invention, parts of the ball chuck and the floor surfacing machine being in section and the normally upper portion of the floor surfacing machine being broken away.

Figures 2, 3, and 4 are sectional views on the lines 2—2, 3—3, and 4—4 of Figure 1, respectively; and Figure 5 is a sectional view on a line 5—5 of Figure 4.

The illustrated embodiment of my invention comprises a chuck 1 and a support 2 therefor which is detachably secured to a rotary tool holder 3 of a floor surfacing machine 4.

The chuck is of annular shape and of such diameter as to receive and hold a bowling ball 5 so that a large superficial area of the ball is exposed for cleaning as it is being rotated.

The support 2 has a plurality of arms 6 which are secured to the chuck, and is provided with a plurality of pins or retaining elements 7. each of which extends through a corresponding slot 8 in the tool holder. The slots are of keyhole shape and the pins 7 are provided with enlarged heads 10 which prevent the escape of the pins from the slots. The pins may, however, be released by an operator if the tool holder 3 is held stationary and the support is moved relatively thereto in the direction indicated by the arrows in Figure 2 until the pins are brought into the enlarged part of the keyhole slot.

As shown in Figure 5, part of the head of each pin is cut away so that when the shank portion of the pin is moved into engagement with the wall of the larger portion of the slot the pin may be readily withdrawn from the slot.

To prevent the accidental release of the support 2 a plunger 11 is provided which is movable back and forth in a housing 12 and which is urged by a spring 13 through an opening 14 in the support 2 and projects into the enlarged portion of one of the keyhole slots 8. The protruding end of the plunger engages the wall of the slot and prevents movement of the pin 7 in the slot; but as the end of the plunger is rounded, the operator can overcome the force of the spring 13 by merely turning the support 2 relative to the tool holder 3 in the manner described.

The support 2 is accurately centered on the holder 3 by means of a stud 14 on the holder which fits snugly in a hole 15 in the center of the support.

The inner face of the tool holder 3 is provided with an internal gear 16 which meshes with a pinion 17; the other parts of the drive of the floor surfacing machine not being shown, as they do not constitute a part of the present invention.

My invention is not limited to the specific details of the embodiment illustrated and described, as this embodiment is capable of being modified in many respects within the scope of the invention; and a substantial range of equivalents is contemplated within the scope of the appended claims.

What I claim as new and desire to protect by Letters Patent is:—

1. A device adapted to be attached to the rotary tool holder of a floor surfacing machine, comprising a support, a plurality of headed retaining elements on said support, said elements shaped and spaced for insertion into a plurality of keyhole-shaped slots in the tool holder, and releasable means for locking the retaining elements in the narrow portions of said slots.

2. A device adapted to be attached to the rotary tool holder of a floor surfacing machine, comprising a chuck, a plurality of supports for the chuck, a plurality of headed retaining elements on said supports, said elements shaped and spaced for insertion into a plurality of keyhole-shaped slots in the tool holder, and releasable means for locking the retaining elements in the narrow portions of said slots, said means comprising a spring-impelled pin adjacent one of said supports.

In testimony whereof I hereunto subscribe my name.

ROBERT E. KENNEDY.