July 18, 1961 J. WISE 2,992,446

POLISH MACHINE FOR BILLIARD BALLS AND THE LIKE

Filed Oct. 20, 1959

Fig. 1.

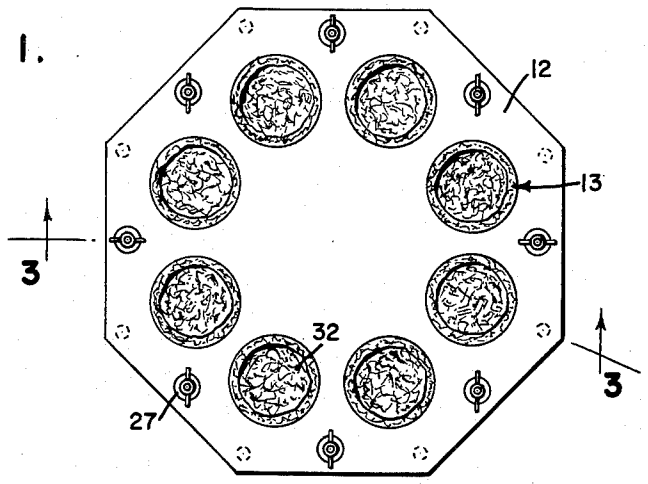
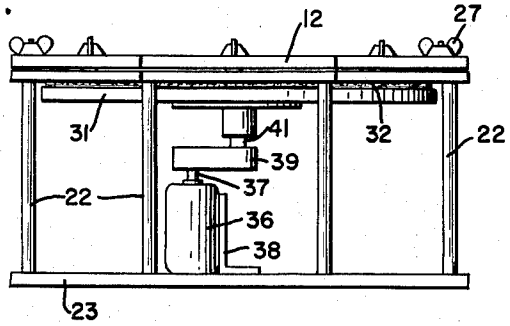


Fig. 2.



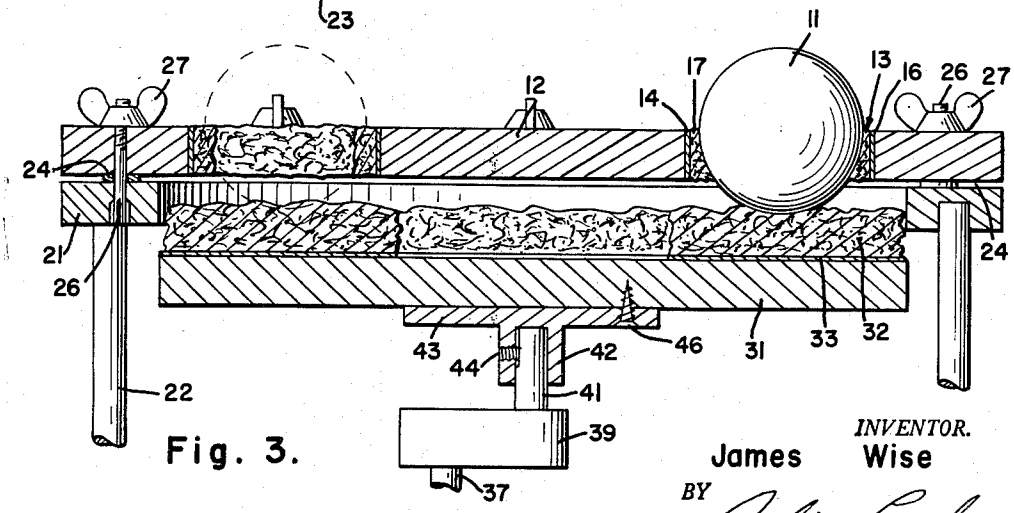


Fig. 3.

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POLISH MACHINE FOR BILLIARD BALLS AND THE LIKE

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2 Claims. (Cl. 15—97)

This invention relates to a new and improved machine for polishing billiard balls and the like. With the passage of time, billiard balls, pocket billiard balls, and similar spherical objects become discolored and imperfections appear in the surface, and further in racking pocket billiard balls there is a tendency for flat surfaces to be formed thereon as the balls are slid over the table in a rack where they are not free to roll. The present invention relates to an electrically-driven machine for polishing balls of this type.

One of the features and advantages of the invention is the elimination of the hand labor involved in polishing balls.

Another feature of the invention is the fact that by reason of the construction of the machine a thorough polishing action is achieved which is superior to that of hand polishing.

Another feature of the invention is to provide a machine which polishes the surface of balls and eliminates surface imperfections and discolorations which commonly occur during use of such objects.

Another feature of the invention is the fact that the balls may be placed in the machine and left unattended while the polishing action is being performed, thereby freeing the attendant for the performance of other duties. For example, at the commencement of operations the attendant may place a full set of pocket billiard balls in the machine for polishing and at the same time clean the table surface, with the result that the two operations are completed about simultaneously.

Another feature of the invention is the provision of a sufficient number of pockets in the machine to accommodate about half of the full complement or even the full complement of the balls used in a conventional game of pocket billiards so that by loading the machine once or twice all of the balls may be polished.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings in which similar characters of reference represent corresponding parts in each of the several views.

In the drawings:

FIG. 1 is a top plan of the machine;

FIG. 2 is a side elevation;

FIG. 3 is an enlarged sectional view taken substantially along line 3—3 of FIG. 1.

A conventional pocket billiard ball or billiard ball **11** is spherical, but the diameters of such balls vary, and further in different areas of the world standard balls have different diameters. As hereinafter explained, the present machine may be adjusted to accommodate balls of different diameter.

In the embodiment of the invention illustrated herein, there is provided a top table surface **12** which is here shown to be of octagonal shape, but which may be of various other shapes such as circular. Disposed in the top surface of the table **12** is a plurality of pockets **13**, all

equidistant from the center of the table, and here again the number of pockets is subject to variation, but as illustrated herein there are eight such pockets which are sufficient to accommodate half of the total number of pocket billiard balls and the cue ball for a standard game of pocket billiards. It will be understood that sixteen pockets may be formed to accommodate a full set of balls. Each pocket **13** is formed by boring in table **12** a hole **14** of a diameter substantially greater than the largest diameter of the ball to be accommodated. The cylindrical wall of the hole **14** is lined with a ring of a polishing material which is preferably lambs wool. Thus, the skin **16** of the fur is glued or otherwise bonded to the wall of the hole **14** leaving the fur **17** facing inwardly of the hole and contacting the ball **11** placed in the pocket.

Because the diameters of balls **11** vary and in order to achieve the best polishing action, it is desirable that the elevation of the table **12** be adjusted so that the fur **17** firmly contacts the ball **11**.

In order to achieve this purpose, table **12** is supported by an annular ring **21**, which is in turn supported by vertical legs **22** fixed at their bottoms to circular disc base **23**. Interposed between annular ring **21** and table **12** is a plurality of spacers **24** which may be changed, and by changing the thickness of the spacers **24** the elevation of the table **12** may be altered. Thus, at each of a number of spaced locations a threaded bolt **26** is fixed in ring **21** and projects upwardly through the spacer **24** and through holes in table **12**. A wing nut **27** secures the table **12** to the ring **21**. In order to change the spacers **24** the wing nuts **27** are removed, the table **12** lifted off the ring **21** and the spacers **24** replaced.

Below the level of table **12** is a rotating disc **31** having a diameter less than the internal diameter of ring **21**. On the top surface of disc **31** is an annular ring of lambs wool **32** immediately underlying the pockets **13**. The skin **33** of the wool is glued or otherwise secured to the disc **31**. Disc **31** is rotated by means of an electric motor **36** fastened with its shaft **37** vertical to the base **23** by means of bracket **38**. A gear reduction box **39** is used in connection with motor **36** and the take-off shaft **41** thereof is secured to collar **42** of drive disc **43** by means of set screw **44**. Disc **43** is secured to the underside of rotating disc **31** by means of a plurality of screws **46**.

Thus in use, the operator removes nuts **27** and changes spacers **24** depending upon the diameter ball **11** being polished. Table **12** is then replaced and nuts **27** retightened. It will be understood that generally it is not necessary to change the spacers **24** since operating conditions will not vary from day to day. Thereupon, motor **36** is started by a switch (not shown) causing disc **31** to rotate. Balls **11** are placed in the pockets **13** and their bottoms contact wool **32**. The rotation of disc **31** thus imparts a rotary motion to balls **11**, and hence a combination polishing action is obtained by the wool **17** in each pocket and by the wool **32** on the rotating disc **31**. Rotation is continued until the polishing action is complete, and this removes discoloration and smooths out surface imperfections. When the desired result has been attained, the motor **36** is stopped and the balls removed.

Although the foregoing invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be practiced within

the spirit of the invention and scope of the appended claims.

What is claimed is:

1. A machine for polishing billiard balls, a base, an annular supporting ring, means elevating said supporting ring above said base, a table, means detachably securing said table to said supporting ring, interchangeable spacer means between said table and said supporting ring for changing the elevation of said table, a rotatable disk below said table, and means for rotating said disk, said table being formed with a plurality of circular holes of a diameter greater than that of a billiard ball whereby a ball fits through one of said holes and rests on said rotatable disk.

2. In a machine according to claim 1, a facing of polishing material on said rotatable disk beneath said holes and a second facing of polishing material around the walls of each of said holes.

References Cited in the file of this patent

UNITED STATES PATENTS

1,690,195 Haley ---------- Nov. 6, 1928

FOREIGN PATENTS

381,301 Great Britain ---------- Oct. 6, 1932