Feb. 3, 1948. S. BAYLIN 2,435,488

APPARATUS FOR POLISHING KNITTING NEEDLES AND THE LIKE

Filed Nov. 9, 1945 2 Sheets-Sheet 1

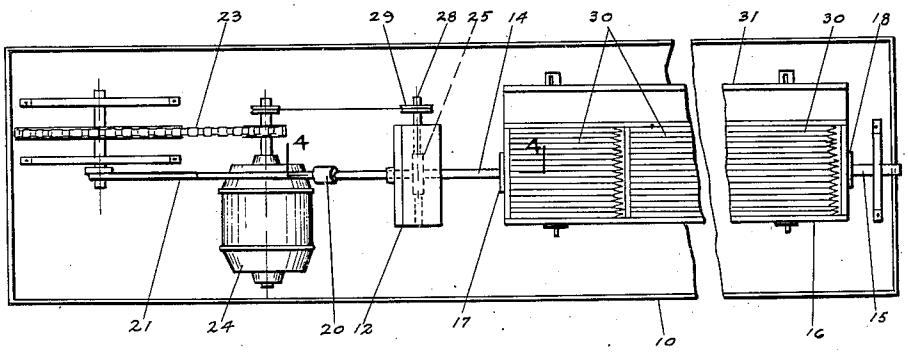


FIG. 2

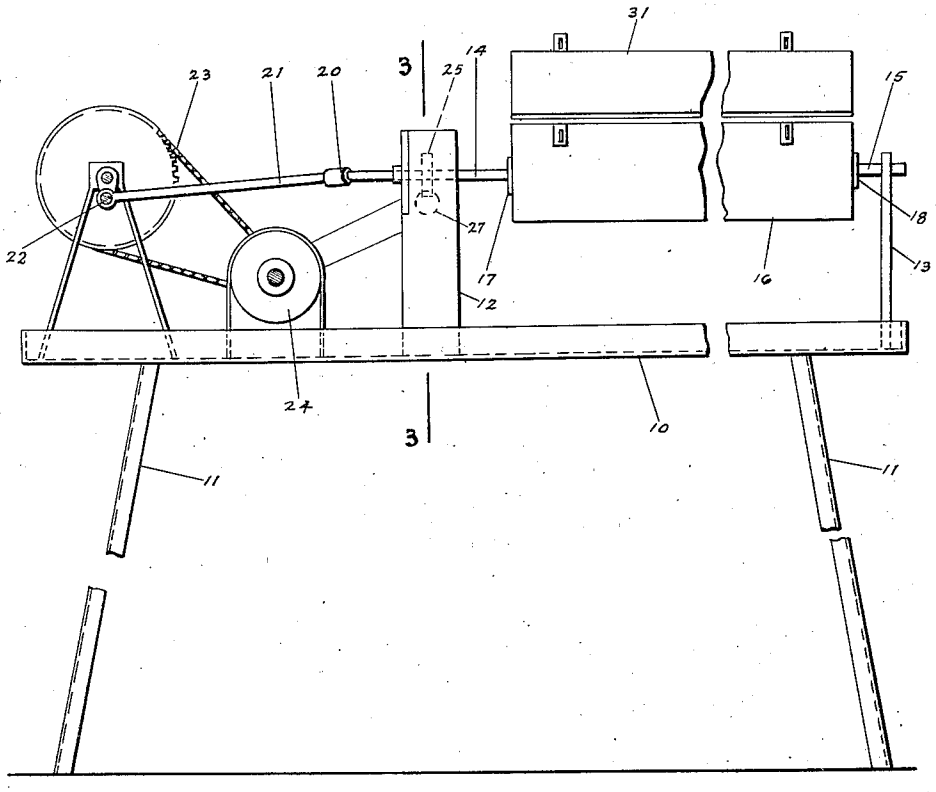


FIG. 1

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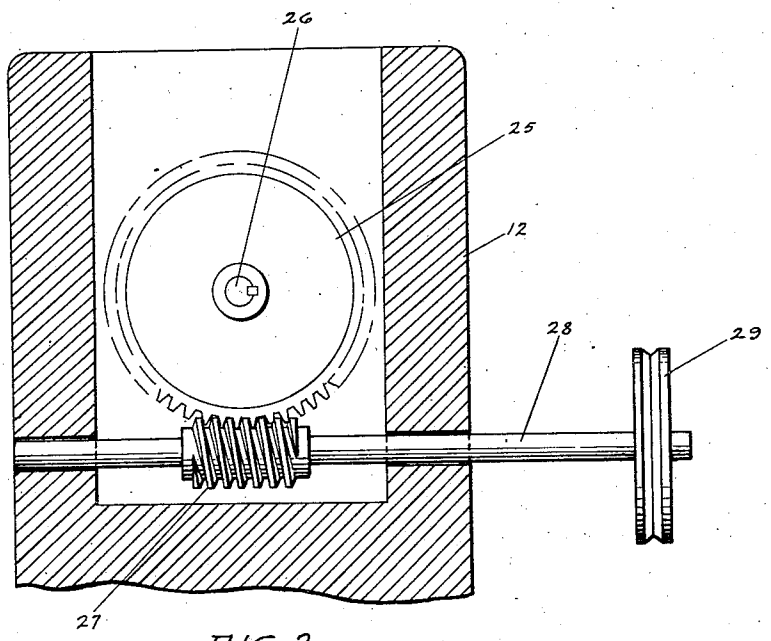


FIG. 3

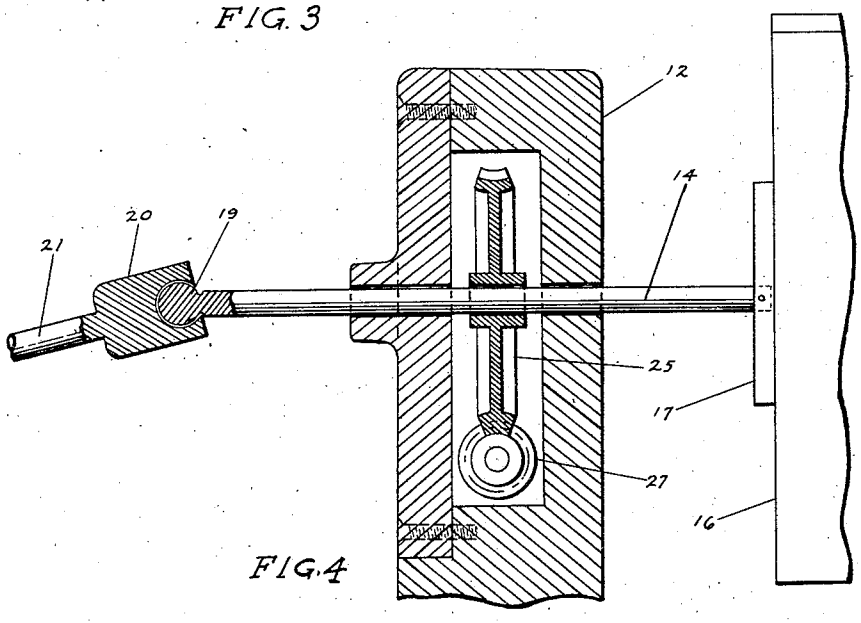


FIG. 4

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UNITED STATES PATENT OFFICE

2,435,488

APPARATUS FOR POLISHING KNITTING NEEDLES AND THE LIKE

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Application November 9, 1945, Serial No. 627,592

2 Claims. (Cl. 51—164)

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The invention relates to an apparatus for polishing knitting needles and the like as described in the present specification and illustrated in the accompanying drawings that form a part of the same.

The invention consists essentially of the novel features of construction as pointed out broadly and specifically in the claims for novelty following a description containing an explanation in detail of an acceptable form of the invention.

The objects of the invention are to devise a means for furbishing knitting needles and kindred articles in large quantities at a time; to reduce the cost in the manufacture of needles owing to less time and labor being required in the polishing of the needles; to avoid the necessity of a worker polishing needles individually and there in place furnish a means for mass polishing; to speed up the production of needles; to increase the output of knitting needles; to construct an apparatus for the cleaning and polishing of needles that is made of comparatively few and simple parts, all easily assembled in the event of repairs or otherwise, such parts being replaceable and that will be economical to operate; and generally to provide an apparatus durable in construction and efficient for its purpose.

In the drawings:

Figure 1 is a fragmentary side elevation of the apparatus.

Figure 2 is a fragmentary plan view of the apparatus.

Figure 3 is a vertical sectional view as taken on the lines 3—3 in Figure 1.

Figure 4 is a vertical sectional view as taken on the lines 4—4 in Figure 3.

Like numerals of reference indicate corresponding parts in the various figures.

In the cleaning and polishing of knitting needles the general practice has been to individually apply the needles to an abrasive apparatus, and this manual operation retards production as well as losing many man-hours, and it is therefore the purpose of this invention to provide an apparatus capable of containing a large quantity of needles and operated by agitation. An acceptable form of the apparatus is as follows.

Referring to the drawings:

The apparatus consists of a base, as indicated by the numeral 10, suitably supported by the standards 11; on the base is mounted a gear casing 12 and a container supporting member 13, the gear casing 12 and supporting member 13 are provided with journal members for the introduction of the driving shaft 14 and the axle shaft 15.

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One end of the driving shaft 14 is secured to the end wall of the container 16 by means of a bracket 17, while one end of the axle shaft is secured to the opposite end wall of the container by means of bracket 18. The driving shaft 14 extends through the gear casing 12 and terminates exteriorly of the casing into a knuckle 19, the latter being engaged by a knuckle socket 20, the whole forming a knuckle joint. The connecting rod 21 has one end secured or forms an integral part of the knuckle socket 20 and the other end is connected to the crank-shaft 22 which is in turn secured to a belt pulley 23 operated by the motor 24.

The gear casing 12 forms the housing for the driving gear 25 which engages with the splined portion 26 of the driving shaft 14. This driving gear intermeshes with the gear 27 which is secured or forms a part of the driven shaft 28, the latter being connected and driven by the motor 24 through belt pulley 29.

The container may be constructed of any suitable size or shape; as here shown it is in the form of a rectangular box divided off into compartments 30 and having a closure or closures 31. In these compartments are inserted the needles to be furbished, together with a suitable abradant.

In the operation of the invention the needles to be cleaned and polished are placed in the container with a suitable abradant, the container is closed and the motor started; this will cause the driving shaft to rotate and as the driving shaft is secured to the container this will also cause the container to rotate or tumble simultaneously, since the driving shaft is also connected to a crank shaft or eccentric this will have the effect of causing the drive shaft to move in a to-and-fro direction and in that way, the needles within the compartments are generally kept in alignment with one another, thereby ensuring complete polishing of the entire needle.

When the container has been agitated sufficiently to accomplish this purpose, the motor is stopped and the polished needles are removed from their compartments in the container and replaced with other needles to be furbished.

The means for holding the needles is as equally important as the means for agitating the same, that is to say, that the container must be designed and constructed in accordance with the length of the needles that are to be inserted therein, so that it will be impossible for the needles, which are placed longitudinally therein, to be

displaced through agitation or otherwise, to such an extent that the needles would jam with the side walls of the container thereby retarding the proper polishing of the needles.

What I claim is:

1. In an apparatus for polishing knitting needles and the like, a container having a plurality of compartments laterally divided one from another which are adapted to hold needles in a longitudinal position, an axle shaft secured to one end of said container and supported by a suitable bearing, a drive shaft secured to the other end of said container and having a splined portion and ending in a knuckle joint, worm and drive gear means for rotating said drive shaft and container connected to said splined portion, and concurrent means connected to said knuckle joint for imparting reciprocating motion to said container, thereby causing said needles to continue in sliding longitudinal relation to said container.

2. In an apparatus for polishing knitting needles and the like, a container having a plurality of compartments laterally divided one from another which are adapted to hold needles in a longitudinal position, an axle shaft secured to one end of said container and supported by a suitable bearing, a drive shaft secured to the other end of said container and having a splined portion and ending in a knuckle joint, means comprising a power source and worm and drive gears connected to said splined portion for rotating said drive shaft and container, and crank shaft means operated by said power source and connected to said knuckle joint for imparting reciprocating motion to said container, thereby causing the said needles to move in sliding longitudinal relation to said container.

SAMUEL BAYLIN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,304,810	Sawyer	May 27, 1919
125,360	Weissenborn	Apr. 2, 1872
1,143,268	Henderson	June 15, 1915
2,387,136	Fruth	Oct. 16, 1945

FOREIGN PATENTS

Number	Country	Date
3,094	Great Britain	1875
189,188	Great Britain	Nov. 20, 1922