

C. MEDGYES.
MACHINE FOR POLISHING METALLIC BODIES.
APPLICATION FILED AUG. 4, 1914.

1,224,191.

Patented May 1, 1917.

Fig. 1

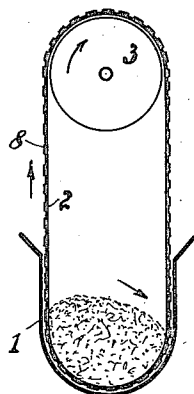


Fig. 2

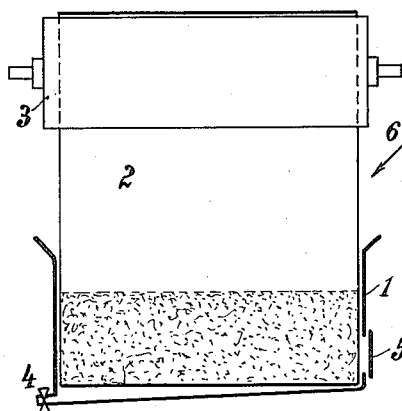


Fig. 3

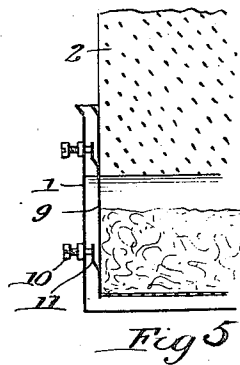
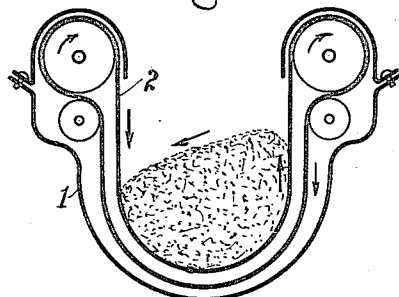
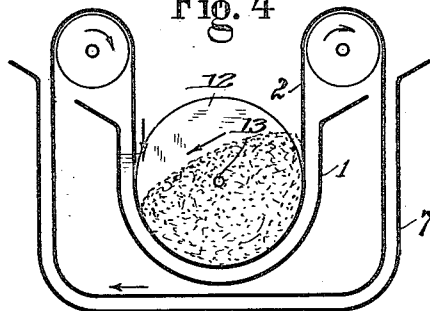


Fig. 4



WITNESSES
Frank H. Logan
Cornelius Hoving

INVENTOR
CHARLES MEDGYES
BY Frank H. Logan
ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES MEDGYES, OF BUDAPEST, HUNGARY, ASSIGNOR TO WENGER & CO., OF
DELEMONT, SWITZERLAND, A FIRM.

MACHINE FOR POLISHING METALLIC BODIES.

1,224,191.

Specification of Letters Patent.

Patented May 1, 1917.

Application filed August 4, 1914. Serial No. 855,077.

To all whom it may concern:

Be it known that I, CHARLES MEDGYES, Ph. D., a subject of the King of Hungary, residing at 78 Váci-körút, Budapest, Hungary, have invented a new and useful Improvement in Machines for Polishing Metallic Bodies; and I do hereby declare the following to be a full, clear, and exact description of the same.

10 This invention relates to a device for polishing various articles, especially metal goods by means of loose small polishing bodies, as highly polished small steel balls and nails.

It is not new to make containers out of yielding material (such as sacks) for use as shaking containers for the polishing bodies used for the polishing. It is also known to polish metal ware especially silver articles in rotary drums, which are more than half filled with the polishing bodies; also to effect the polishing in fixed receptacles in such way that the polishing material is constantly removed at one part of the receptacle and returned again to the receptacle in a circuit. 20 When polishing in drums there is the disadvantage that the drum for the time during the charge and discharge of the goods to be polished has to be stopped whereby especially with goods which can be polished quickly and easily, considerable loss of time occurs. 30 With the open devices for polishing, there is however the disadvantage that the goods to be polished have the tendency to be shifted together with the polishing material in the direction of run of the latter; if however, said goods, in order to prevent this shifting are held, only those surfaces of said goods are polished which face the direction of run of the polishing material.

40 The present invention attains the combination of the advantages of both devices by carrying out the polishing in an open receptacle into which is inserted the lower part or bight of an endless circulating conveyer belt carrying the polishing material. It is evident that the direction of movement of the belt can be reversed from time to time.

In the accompanying drawings:—

50 Figures 1 and 2 are vertical sectional elevations in planes at right angles to each other showing diagrammatically one example of a device according to the present invention; and

55 Figs. 3 and 4 are transverse sectional elevations illustrating other examples.

Fig. 5 is a longitudinal sectional view of the form of invention of Fig. 4.

In the example shown in Figs. 1 and 2, 1 is a trough and 2 the conveyer belt which is driven by a roller 3. For removing the soap-water and the polishing bodies the valve 4 or the tightened door or flap 5 is used.

The goods to be polished can be put in and out during working between the two hanging parts of the belt, as indicated by the arrow 6. The conveyer belt hangs freely with the polishing material within the trough, only the edges of the belt trailing against the front walls of the trough, in order to prevent the polishing material from falling into the trough from the polishing space situated between the front walls and the belt.

In the example shown in Fig. 3 the full possibility of reaching the polishing space is attained by guiding the idle part of the conveyer belt over lateral guiding rollers which lead it below the polishing space and the working part of the belt.

In the example shown in Fig. 4, the idle part of the band is passed below the guiding trough 1 and runs within a special outer trough 7.

The conveyer belt may be yieldingly or pivotally jointed and can be perforated or unperforated. It may also be provided with stiffening cross stays 8 or to be formed of jointed plates. It can be made of any suitable material, such as flat or corrugated steel bands, rubber with longitudinally extending steel bands for preventing stretching, wire gage with cross ribs for preventing bulging, and the like.

In order to prevent the escape of the polishing bodies between the front walls and the conveyer belt the edges of the belt may be guided in suitable slots in the front walls or there may be arranged within said front walls auxiliary walls 9 (Fig. 5) adapted to be adjusted parallel with said front walls *i. e.* by means of adjusting screws 10 and in accordance with the distance of the edges of the belt; these auxiliary front walls may be yieldingly pressed against the edges of the belt by the insertion of springs 11.

Another means to prevent the escape of the polishing bodies consists in lateral parallel disks 12 of the diameter of the bight of

the band, rotating on a shaft 13, and spaced in such a manner, that the edges of the band run around the under edges of the disks.

In larger machines a number of rotatable supporting rollers may be arranged around the under side of the bight of the band, parallel with the axis of the trough, to insure a broad form of the bight.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. In a machine for polishing metallic bodies with small polishing bodies, as small steel balls, a single continuous conveyer belt forming with its U-shaped bight a receptacle adapted to receive the small polishing bodies, means to prevent the escape of these small polishing bodies out of the bight of the belt at the edge thereof, means to drive continually said conveyer belt and an open receptacle receiving the bight of the conveyer belt.

2. In a machine for polishing metallic bodies with small polishing bodies, as small steel balls, a conveyer belt forming with its U-shaped bight a receptacle for the polishing bodies, means to prevent the escape of these small polishing bodies out of the bight of the belt, means to drive continually said conveyer belt and trough with parallel front walls, receiving the bight of the conveyer belt, the breadth of which is equal to the distance of the front walls of said trough.

3. In a machine for polishing metallic bodies with small polishing bodies, as small steel balls, a conveyer belt forming with its U-shaped bight a receptacle for the polish-

ing bodies, means to prevent the escape of these small polishing bodies out of the bight of the belt, means to drive continually said conveyer belt parallel with the auxiliary front walls within said receptacle and means to adjust the auxiliary front walls in accordance with the distance of the edges of the belt.

4. In a machine for polishing metallic bodies with small polishing bodies, as small steel balls, a conveyer belt forming with its U-shaped bight a receptacle for the polishing bodies, means to prevent the escape of these small polishing bodies out of the bight of the belt, means to drive continually said conveyer belt, an open receptacle receiving the bight of the conveyer belt and auxiliary front walls within said receptacle and means to press these auxiliary front walls against the edges of the belt.

5. In a machine for polishing metallic bodies with small polishing bodies, as small steel balls, a conveyer belt forming with its U-shaped bight a receptacle for the polishing bodies, means to prevent the escape of these small polishing bodies out of the bight of the belt, means to drive continually said conveyer belt, an open receptacle receiving the bight of the conveyer belt, and guiding rollers leading the idle part of said belt below the working part of same.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES MEDGYES.

Witnesses:

EUGENE HARSANYI,
SERENE WEISSHAUS.