

T. J. DALTON.
SHOE CLEANING DEVICE.
APPLICATION FILED AUG. 7, 1911.

1,019,769.

Patented Mar. 12, 1912.

3 SHEETS—SHEET 1.

Fig. 2.

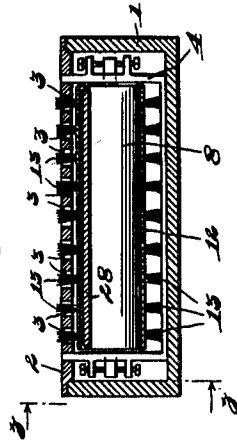
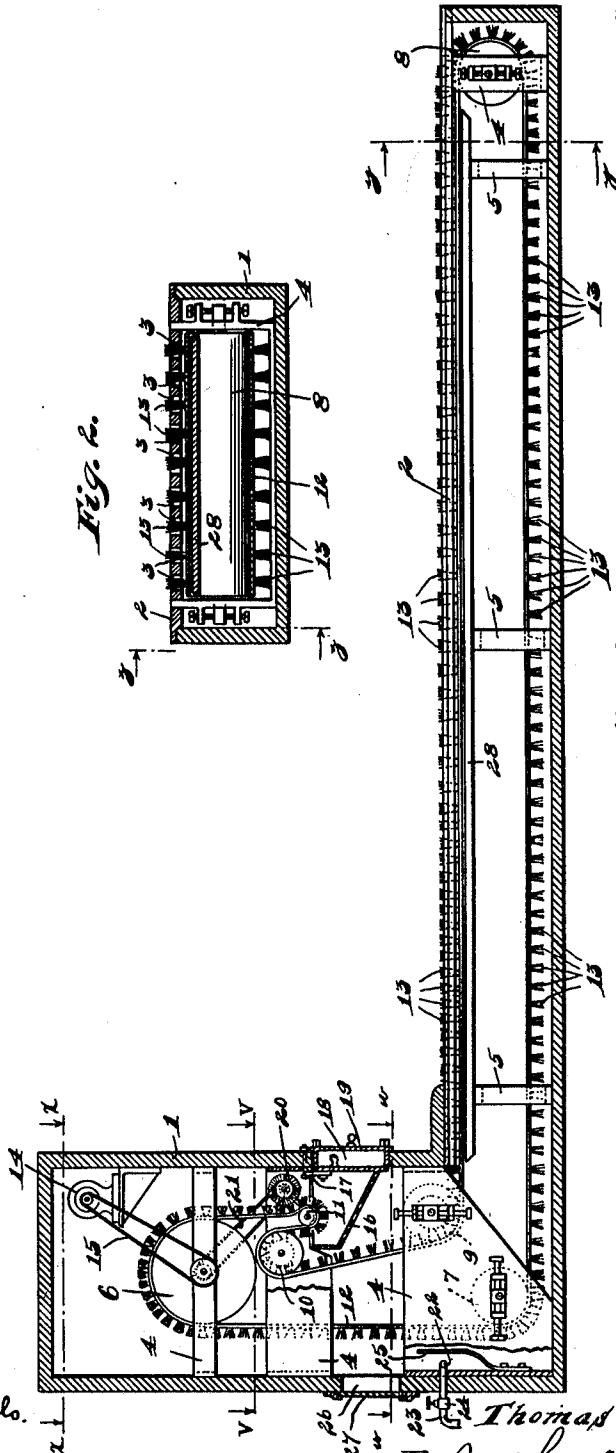


Fig. 1.



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3 SHEETS—SHEET 2.

Fig. 3.

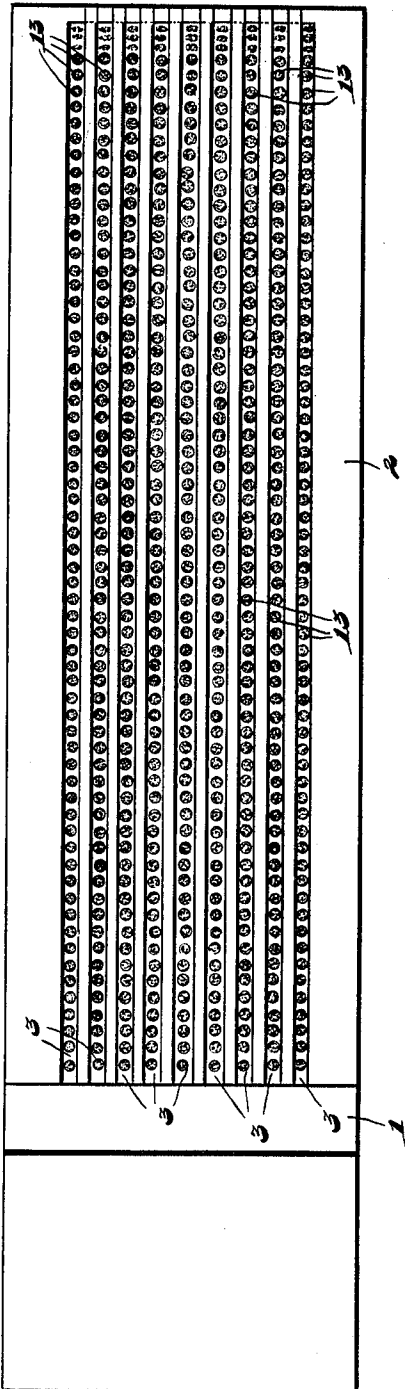
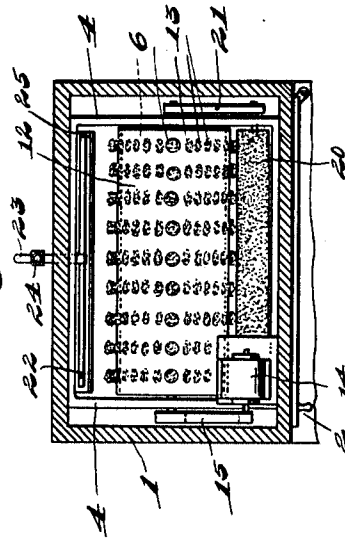


Fig. 4.



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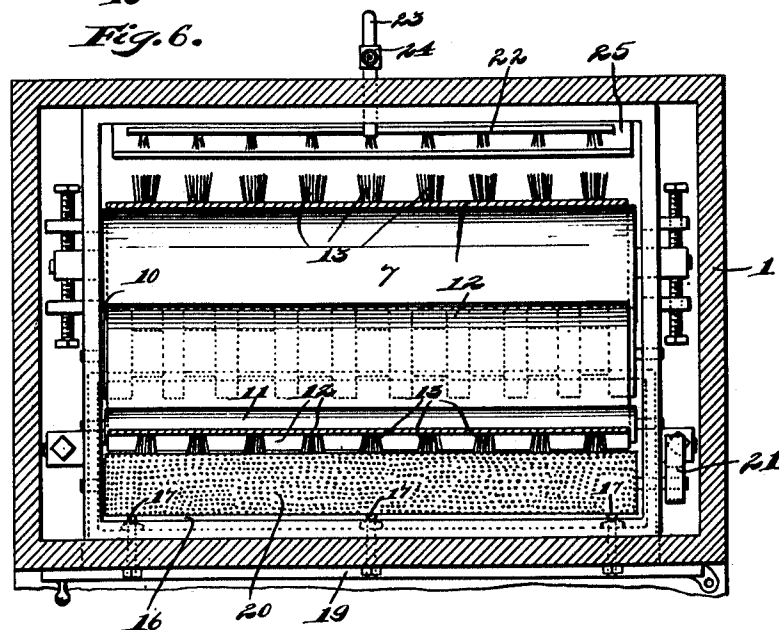
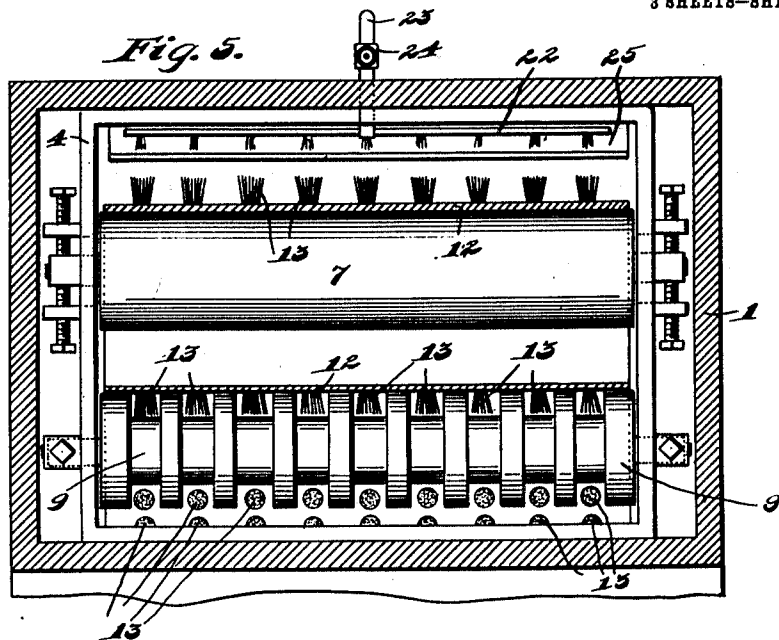
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3 SHEETS-SHEET 3.



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UNITED STATES PATENT OFFICE.

THOMAS J. DALTON, OF CHICAGO, ILLINOIS.

SHOE-CLEANING DEVICE.

1,019,769.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed August 7, 1911. Serial No. 642,691.

To all whom it may concern:

Be it known that I, THOMAS J. DALTON, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Shoe-Cleaning Devices, of which the following is a specification.

My invention relates to improvements in shoe cleaning devices and more specifically to a device adapted for employment in wiping or cleaning the soles of shoes.

The object of my invention is the production of a device of the character mentioned which will be of simple and economical construction, and which will be of high efficiency in operation.

Other objects will appear hereinafter.

With these objects in view my invention consists in the combinations and arrangements of parts hereinafter described and claimed.

My invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a vertical longitudinal section of the device through the casing thereof, the section being taken on substantially line $z-z$ of Fig. 2, Fig. 2 is a transverse section taken on line $y-y$ of Fig. 1, Fig. 3 is a top plan view of the device, Fig. 4 is a section taken on line $x-x$ of Fig. 1, and Figs. 5 and 6 are enlarged sections taken on lines $w-w$ and $v-v$ of Fig. 1 respectively.

The preferred form of construction as illustrated in the drawings comprises a casing 1 which is of elongated angular form as shown, the top wall 2 of said casing being provided with a plurality of longitudinally extending slots or openings 3. Arranged in said casing at intervals are reinforcing metallic bands 4 and 5. Rotatably mounted in the bands 4 are rollers 6, 7, 8, 9, 10 and 11 over which travels an endless flexible belt 12. The bearings on rollers 7, 8 and 9 are adjustably mounted as will be observed in order to afford means for taking up the slack in the belt, the adjustment afforded by the construction shown being evidently adapted to effect this purpose. Provided upon the outer side of the belt 12 are tufts of bristles 13 which are arranged in longitudinal rows as shown in projections through the openings or slots 3 in the top wall 2 during the travel of the belt. It will

be observed that the belt in its passage through the casing contacts with the rollers 9 and 10 with the bristles 13 thereof adjacent said rollers, the latter, in order to afford clearance for said bristles being circumferentially grooved as clearly shown in Figs. 5 and 6.

Driving of the belt 12 is effected through the medium of an electric motor 14 which is operatively connected with the roller 6 through the belt 15. Arranged in the casing below the motor 14 and immediately below the roller 11 is a bathing pan 16 which is removably supported in said casing by supporting bolts 17. Access to the interior of the casing in order to effect removal or insertion of the pan 16 may be made through an opening 18 which is normally closed by the closure 19. The pan 16 is so arranged that in the passage of the belt under the roller 11 the bristles of said belt will be immersed in the bathing or cleansing liquid, such as water which will be contained in said pan. Thus cleansing of the bristles is effected. Arranged above the pan 16 and adjacent the roller 11 is a cylindrical rotary brush 20 which contacts with the bristles 13 to serve as a means of further cleaning of said bristles after leaving the cleansing bath. The brush 20 is connected by means of a belt 21 with the roller 6 so that said brush will be rotated in a direction opposite to that in which the belt is traveling. Foreign matter removed by the brush when in operation will evidently be deposited in the pan 16 positioned below whence the same may be readily discharged by removal of said pan.

Arranged at the opposite side of the casing to that at which the pan 16 and the brush 20 are located is a burner 22, which is connected with a fuel supply pipe 23, there being a controlling cock 24 provided in the latter. Arranged forward of the burner 22 is a deflecting plate 25 which is adapted to deflect the flames or heat issuing from said burner to prevent the direct contact thereof with the bristles 13 passing upon the belt 12. Access to the interior of the casing for lighting the burner is afforded through the opening 26 which is normally closed by the closure 27. With this arrangement it will be observed that provision is made for effecting the drying of the bristles which previously had been wet in pan 16 and so that said bristles will be thoroughly

dried before the same reach the exposure openings 3 in the casing. The dirt or foreign matter removed by the bristles from the shoe placed in contact therewith is removed from said bristles during the bathing thereof in the pan 16 and by contact with the brush 20.

In using the device, the shoe to be cleaned is placed upon the top wall 2 of the casing. When the shoe is thus placed, the bottom thereof will be brought into contact with the bristles 13 upon the belt 12 which are moved longitudinally of said plate in the openings 3. In order to afford a backing for the belt at the place of operation a plate 28 is provided which is supported upon the bands 5 directly below the wall 2 of the casing, said plate evidently serving to maintain the belt in proper position, preventing depression or sagging thereof and hence of the bristles 13 when a shoe is pressed against the outer ends of said bristles.

A cleaning device of the construction set forth is durable and economical in construction and of great efficiency in use.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation or modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a shoe cleaning device, the combination with a flexible endless belt, having bristles on one side thereof, of a bath through which said belt is adapted to pass for cleansing said bristles; and means for drying said bristles, substantially as described.

2. In a shoe cleaning device, the combination with a flexible endless belt, having bristles on one side thereof, of a bath through which said belt is adapted to pass for cleansing said bristles; and a heating element for effecting the drying of said bristles, substantially as described.

3. In a shoe cleaning device, the combination with a flexible endless belt; having bristles on one side thereof, of a bath through which said belt is adapted to pass

for cleansing said bristles; and means for directing a current of hot air to impinge upon said belt for drying said bristles, substantially as described.

4. In a shoe cleaning device, the combination with a flexible endless belt having bristles on one side thereof, of a bath through which said belt is adapted to pass for cleansing said bristles; a rotary brush operating upon said bristles adapted to remove foreign matter therefrom and direct the same into said bath; and means for drying said bristles, substantially as described.

5. A shoe cleaning device, comprising a casing provided with slots or openings, a flexible endless belt having bristles on one side thereof, adapted to project through said openings; a bath through which said belt is adapted to pass for cleansing said bristles after passing beyond said openings; and means for drying said bristles, after passing from said bath and before exposure at said openings, substantially as described.

6. A shoe cleaning device, comprising a casing provided with slots or openings, a flexible endless belt having bristles on one side thereof, adapted to project through said openings; a bath through which said belt is adapted to pass for cleansing said bristles after passing beyond said openings; a rotary brush operating upon said bristles adapted to remove foreign matter therefrom and direct the same into the said bath; and means for drying said bristles after passing from said bath and from contact with said rotary brush and before exposure at said openings, substantially as described.

7. In a shoe cleaning device, a casing provided with slots or openings, rollers mounted in said casing; an endless belt mounted on said rollers and having bristles on one side thereof arranged in longitudinal rows to project through said openings; and rollers contacting with the side of said belt bearing said bristles, said last mentioned rollers being circumferentially grooved to afford clearance for said bristles, substantially as described.

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

THOMAS J. DAITON.

Witnesses:

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