Oct. 4, 1955 A. GOLDEN 2,719,422

PANTS SPOTTING MACHINE

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Fig. 1

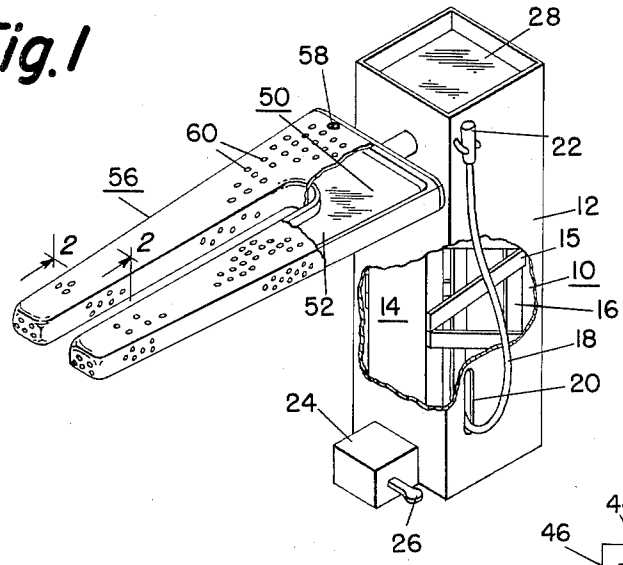


Fig. 2

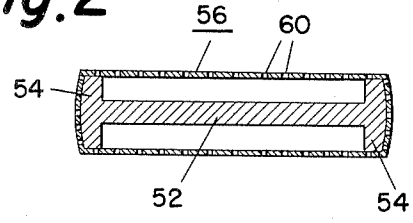


Fig. 3

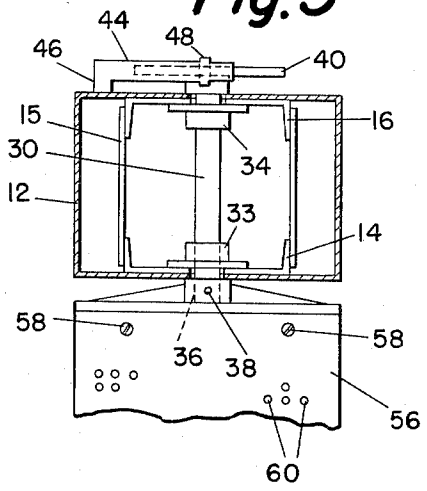
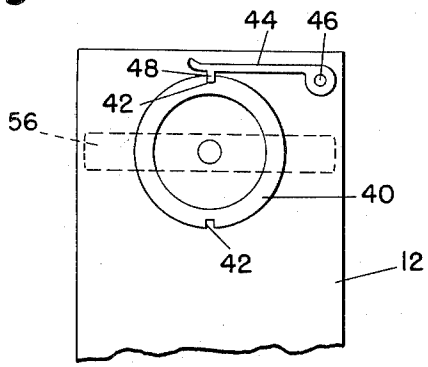


Fig. 4



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PANTS SPOTTING MACHINE

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3 Claims. (Cl. 68—240)

The present invention relates generally to spotting machines for use in conjunction with the dry cleaning of clothing or the like and it relates more particularly to a novel spotting machine intended primarily for removing spots from pants, trousers, slacks and similar bifurcated garments.

An object of the present invention is to provide a new and improved pants spotting machine. Another object of the present invention is to provide a spotting machine intended for use on pants, trousers, slacks and like bifurcated garments, whereby both the front and the rear portions of the garment can be treated, for elimination of the spots therefrom, without the need for removing the garment from the machine. Still another object of the present invention is to provide a pants spotting machine having a novel bifurcated two-piece spotting board adapted to permit more effective spotting of garments and constructed and arranged so that it can be quickly and easily taken apart, from time to time, to permit cleaning thereof.

Other objects and advantages of the present invention are apparent in the following detailed description, appended claims and accompanying drawings.

In the dry cleaning of garments, it is customary to provide a spotting machine having a relatively thin flat horizontally disposed spotting board over which the garment is pulled and inspected by the operator or "spotter" who then uses water, steam and/or chemicals to remove the spots or stains from the garment. In conventional spotting machines, the spotting board resembles the ordinary ironing board, having more or less parallel sides and a tapered nose. These conventional spotting boards are perfectly adequate for skirts, coats and other similar articles of clothing, in that the spotter, after cleaning one portion of the garment, simply pulls it to position a new portion of the garment at the top of the spotting board and repeats the procedure until the entire garment has been spotted.

However, conventional spotting boards are not satisfactory for pants or other bifurcated garments, since only a single leg of the garment can be positioned upon the board and, therefore, it is necessary first to spot one leg of the garment, and thereafter to remove that leg of the garment and to pull the other leg of the garment over the board and to repeat the spotting procedure.

In recognition of the inadequacy of conventional spotting machines, bifurcated spotting boards have heretofore been suggested. However, these too are not entirely satisfactory because, while they hold both legs of the garment, the spotter can clean only one side thereof and, in order to clean the other side, it is necessary for him to remove the garment, turn it around and replace it on the spotting board.

According to the present invention there has, for the first time, been provided a novel spotting machine which will hold both legs of a bifurcated garment and will enable the spotter to clean both sides (i. e. front and back)

of the garment without removing the garment from the machine.

Generally speaking, the novel spotting machine of the present invention comprises a base upon which a bifurcated spotting board is mounted for rotation about its longitudinal horizontal axis; there being also provided an operating handle for manual rotation of the spotting board, together with means for releasably locking the spotting board in either of two 180° rotated positions. The novel spotting board of the present invention is preferably formed in two parts, namely an inner dirt-collecting tray and an outer perforated sleeve which fits over the tray and is releasably secured thereto so that it can be removed, from time to time, to permit accumulated dirt to be cleaned from the tray. The novel spotting machine of the present invention is also provided with a conventional steam gun, chemical tray and other accessories present in all spotting machines.

For the purpose of illustrating this invention, there is shown in the accompanying drawings one form thereof which is presently preferred. It is to be understood, however, that the present invention is not limited to the precise arrangements and instrumentalities shown and that the several structural elements can be variously arranged and organized without departing from the spirit or essential attributes of the invention.

Referring to the accompanying drawings in which like reference characters indicate like parts throughout:

Figure 1 is a perspective view of one embodiment of the present invention; parts being broken away better to reveal the construction thereof.

Figure 2 is an enlarged cross-sectional view taken generally along the line 2—2 of Figure 1.

Figure 3 is a fragmentary top plan view of the embodiment of Fig. 1, parts being broken away better to reveal the construction thereof.

Figure 4 is an end elevational view of the embodiment of Figs. 1–3, showing the appearance of the operating handle and the locking mechanism.

In Fig. 1, I have shown a pants spotting machine forming one embodiment of the present invention.

The embodiment of Fig. 1 includes a support or base indicated generally by the reference character **10**. The support or base **10** includes an outer generally enclosed housing made up of vertical sheet metal panels **12** within which are disposed a pair of spaced upright structural members **14** and **16**, connected by a plurality of spacing members **15**, best illustrated in Fig. 3, which may be of U-shaped cross-sectional configuration and which serve to support the spotting board in a manner to be hereinafter described.

The support or base **10** is provided with conventional means (not shown) for connecting it to a source of live steam. A steam hose **18** is operatively connected to the steam line and emerges through an elongated slot **20** formed near the bottom of the housing panel **12** facing the operator or spotter. A steam gun or nozzle **22**, of conventional construction, is provided on the free end of the hose **18**.

At the bottom of the support or base **10**, there is provided a foot-like extension **24** from which protrudes an operating pedal **26** connected, in conventional manner, to an on-off valve (not shown) in the steam line, so that, when the operating pedal **26** is depressed, steam will be delivered to the hose **18** and the steam gun **22** and, when the pedal is released, it will automatically return to elevated valve-closing position.

While I have shown, in Fig. 1, only a single steam hose and gun and operating pedal, it is possible to provide instead two hoses, one for steam and the other for air. Also, it is possible to provide a hose for a water spray, if desired.

At the top of the support or base **10** there is provided a flanged tray **28** intended to hold bottles of various chemicals, as well as brushes and other paraphernalia which the spotter employs in removing spots and stains from a garment.

Extending horizontally through the support or base **10**, slightly below the upper end thereof, is a shaft **30** which is rotatably supported by spaced bearings **33** and **34**, of conventional construction, mounted at the upper ends of the structural members **14** and **16** respectively.

The protruding forward end of the shaft **30** extends into a socket **36** forming part of the spotting board to be hereinafter described; the shaft being keyed to the socket by a locking pin **38**, best shown in Fig. 3.

The rear end of the shaft **30** also protrudes beyond the support or base **10** and carries an operating handle or wheel **40**, intended to be manually grasped and turned so as to cause rotation of the shaft. Upon the rim of the operating handle **40** are provided two notches **42** spaced 180° from each other. A locking arm **44** is pivotally mounted on the rear housing panel, as at **46**; a downwardly directed locking finger **48** being provided adjacent the free end of the locking arm **44** and being constructed and arranged to fit into one or the other of the notches **42**. It is obvious that, in order to cause 180° rotation of the shaft (and the spotting board carried by the shaft), the operator need simply raise the locking arm **44** manually and turn the handle or wheel **40** (in either direction). Gravity will cause the locking finger to bear against the rim of the operating wheel, as the latter rotates, and, as soon as the other notch comes into alignment with the locking finger **48**, the latter will seat itself within the notch and will automatically lock the shaft and the spotting board in a position rotated 180° from its original position.

The spotting board includes an elongated tray **50** which is bifurcated so as to provide spaced tapered arms **52** extending throughout the greater portion of the longitudinal or horizontal dimension of the tray.

The socket **36** referred to above is mounted centrally of the rear end of the spotting board tray **50**, the locking pin **38** being so disposed that, when either of the notches **42** is engaged by the locking finger **48**, the spotting board tray **50** is in generally horizontal position. Thus, it is apparent that, when the operating handle **40** is rotated a half revolution in the manner described above, the spotting board will also be rotated about its longitudinal axis so as to position one or the other of its sides uppermost.

As best indicated in Figs. 1 and 2, the spotting board tray **50** is provided with a continuous peripheral flange **54** extending along the inner sides of the bifurcated portion as well as along the outer sides and the rear of the tray. As shown in Fig. 2, the flange **54** extends both upward and downward from the main horizontal portion of the tray so that the tray is dished at both its upper and lower sides.

The spotting board also includes an outer bifurcated sleeve **56** shaped generally to conform to the contour of the tray **50** and constructed and arranged to fit snugly over the peripheral flange of the tray, as indicated in Fig. 2, and to be secured to the rear portion of the peripheral flange by a plurality of screws **58**, as indicated in Fig. 3. The spotting board sleeve **56** is apertured throughout, as at **60**, so that, when a garment is fitted upon the spotting board and steam applied thereto from the gun **22**, the dirt or other foreign matter will be driven from the garment through the apertures and into the dished tray **50**.

While it has heretofore been suggested that spotting boards require drainage channels for condensed steam, it has been my experience that a negligible amount of condensate is formed as the result of steam spotting. Thus, the garment itself retains a good part of the moisture, and the remainder is taken up by the lint shed by the garment during the spotting, the lint being forced through the apertures **60**, along with dirt particles and other foreign matter, and collecting on the tray **50** as a more or less adherent solid coating.

After prolonged use, the screws **58** are removed whereupon the sleeve **56** can be slipped off to permit cleaning of the tray and also the inside of the sleeve.

The manner of use of the novel spotting machine of the present invention is as follows.

The pants or trousers or slacks or other bifurcated garment is first slipped over the spotting board so that both legs of the garment are more or less stretched flat upon the forward bifurcated portion of the sleeve **56**, while the upper portion of the garment is likewise more or less stretched flat upon the rear portion of the sleeve.

The operator or spotter then works over the front of the garment removing all spots therefrom, by use of water, steam and/or conventional spotting chemicals. After the front of the garment has been completely freed of spots, the spotter raises the locking arm **44** and turns the operating wheel until the locking finger **48** seats itself in the opposite notch **42**, thereby rotating the spotting board 180 degrees so as to position the bottom side of the garment on top. The spotter then works on the bottom side of the garment removing all spots therefrom, after which the garment is removed from the spotting board.

In other words, once the garment has been positioned upon the spotting board, it can be completely freed of spots without need for shifting it relative to the spotting board or removing it therefrom.

By using the novel spotting machine of the present invention, it is possible for a spotter to reduce, by almost half, the time required to process a bifurcated garment.

Additionally, since the spotter does not have to turn the garment relative to the spotting board, there is less of a tendency to overlook spots and a more thorough cleaning job is the result.

It can readily be seen, therefore, that use of the novel spotting machine of the present invention will effect tremendous savings in time in the dry cleaning industry, in addition to providing more effective and efficient cleaning of spots and stains.

By way of illustration, it is pointed out that the dimensions of the spotting board can be as follows. The overall longitudinal dimension of the board can be approximately 46 inches with the longitudinal dimension of the bifurcated portion approximately 36 inches. The transverse dimension of each bifurcated portion can taper from about 8 inches near its inner end down to about 4 inches at its outer end. The transverse dimension of the spotting board at its rear end (i. e. rearward of the bifurcated portion) can be about 18 inches.

I prefer to construct the spotting board tray and sleeve from aluminum alloy or other light-weight, non-corroding metal so as to keep the weight, initial cost and maintenance of the spotting machine at a minimum.

The present invention can be embodied in other specific forms and, therefore, the foregoing embodiment is to be considered merely illustrative and not descriptive, reference being made to the appended claims, rather than to the preceding specification, as indicating the scope of the invention.

Having thus described my invention, I claim as new and desire to protect by Letters Patent the following:

1. In a pants spotting machine, a base, a horizontal shaft rotatably mounted on said base, an operating handle for manually rotating said shaft, releasable locking means for locking said shaft in either of two 180° displaced positions, and an elongated generally flat symmetrical bifurcated spotting board mounted at the forward end of said shaft, said spotting board including an inner bifurcated tray dished on both sides and secured to the shaft and an outer bifurcated apertured sleeve fitting over the tray and releasably secured thereto, said spotting board extending generally in axial alignment with said shaft and being keyed thereto so that either side of the board can be positioned uppermost in a horizontal plane upon rotation of

the shaft to its alternative locked positions whereby a pair of pants can be spotted throughout without removal from the machine.

2. A construction according to claim 1 wherein the inner bifurcated tray has a continuous peripheral flange protruding upward and downward from the main portion of the tray, and wherein the outer apertured sleeve is disposed in snugly fitting relationship to the flange of the tray, lint removed from the pants during the spotting being forced through the sleeve and collecting on the two dished sides of the tray, and means for releasably securing the sleeve to the tray adjacent the rear end of the tray, whereby the tray can be periodically cleaned.

3. In a pants spotting machine, a base, a horizontal shaft rotatably mounted on the base and protruding both forwardly and rearwardly therefrom, an elongated generally flat symmetrical bifurcated spotting board mounted at the forward end of the shaft in axial alignment therewith, said spotting board including an inner bifurcated tray dished on both sides and secured and keyed to the shaft and an outer bifurcated apertured sleeve fitting over

the tray and releasably secured thereto, an operating wheel mounted on and keyed to the protruding rear end of the shaft and having a pair of diametrically spaced notches formed in its rim, and a pivoted locking handle mounted adjacent the wheel and having a locking finger adapted to seat within either of the two wheel notches, whereby the wheel can be locked in alternative 180-degree rotated positions so as to place either side of the spotting board uppermost, so as to enable a pair of pants to be spotted throughout without removal from the machine.

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