

W. C. GLOVER, JR
GARMENT SPOTTING MACHINE

3 Sheets-Sheet 1

Original Filed March 18, 1950

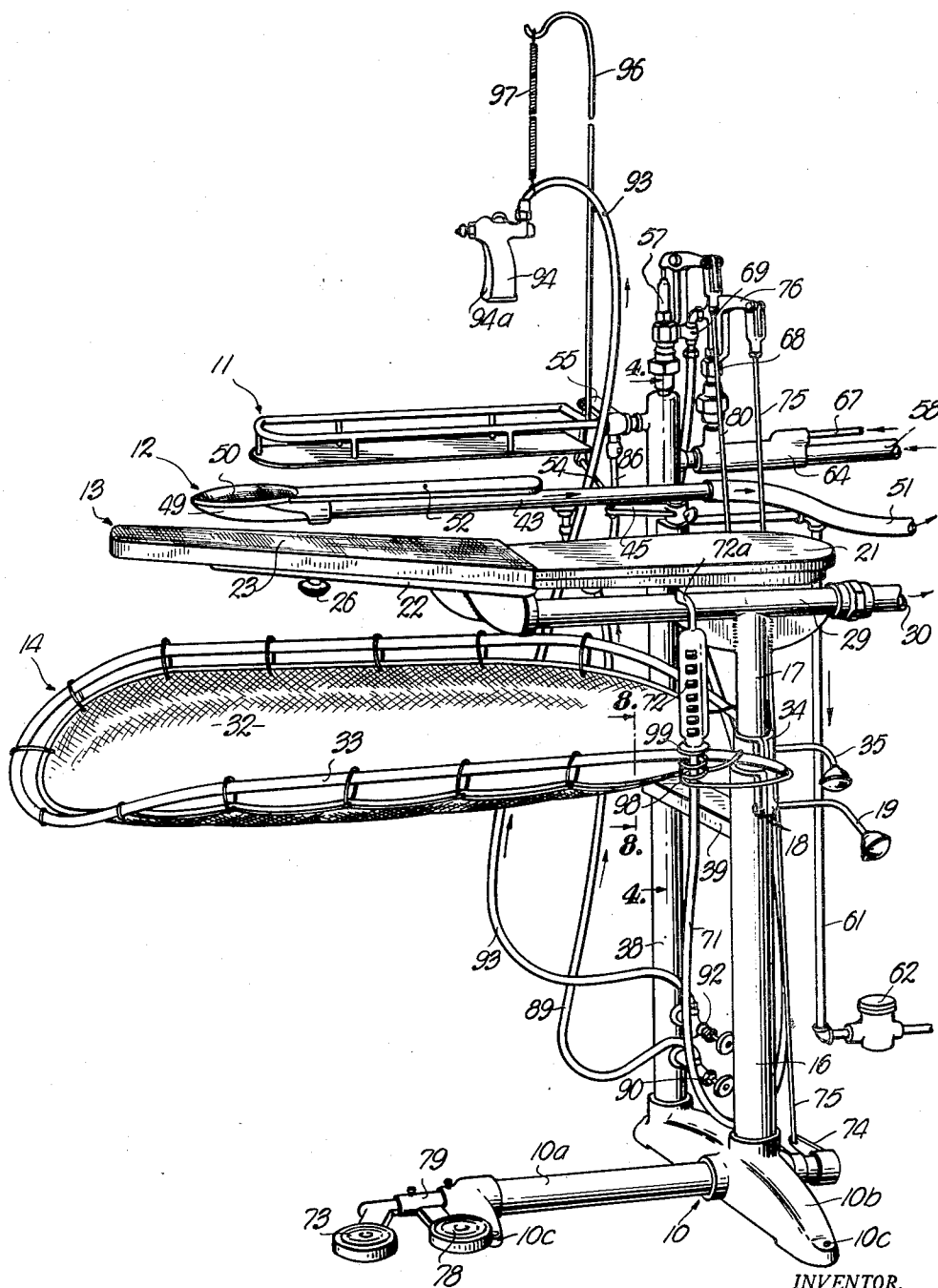


Fig. 1.

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3 Sheets-Sheet 2

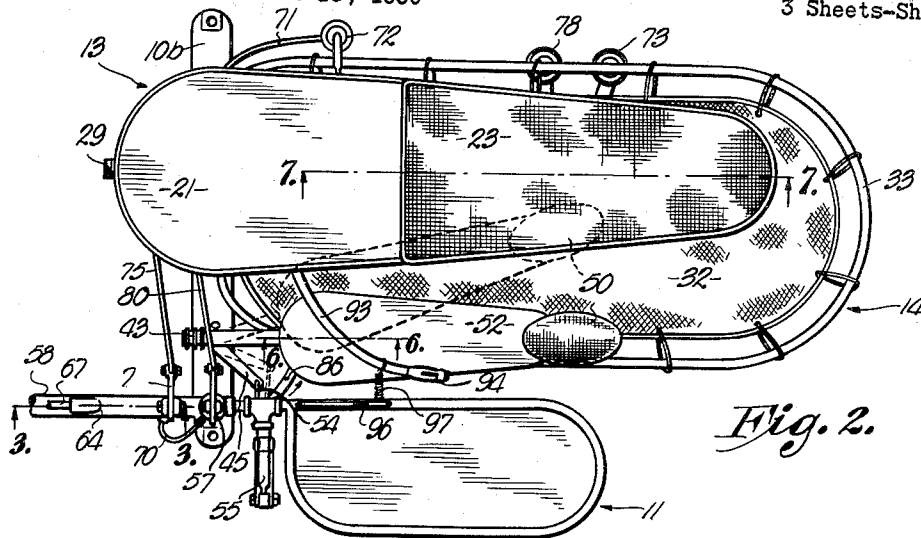


Fig. 2.

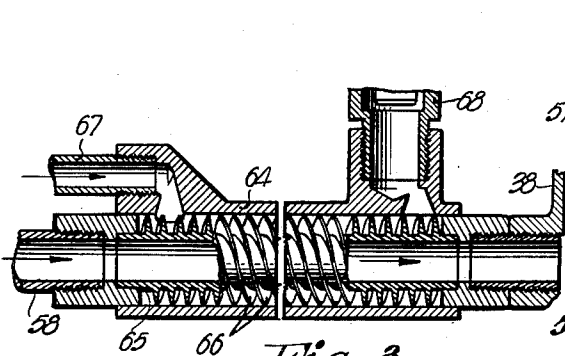


Fig. 3.

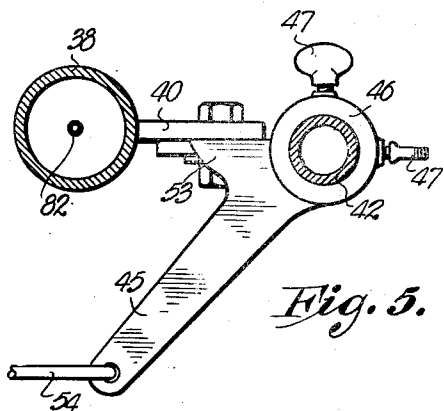


Fig. 5.

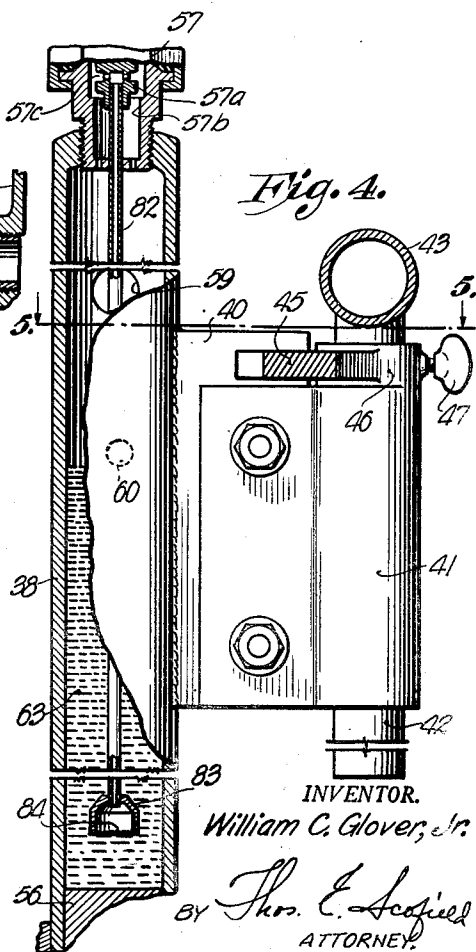


Fig. 4.

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3 Sheets-Sheet 3

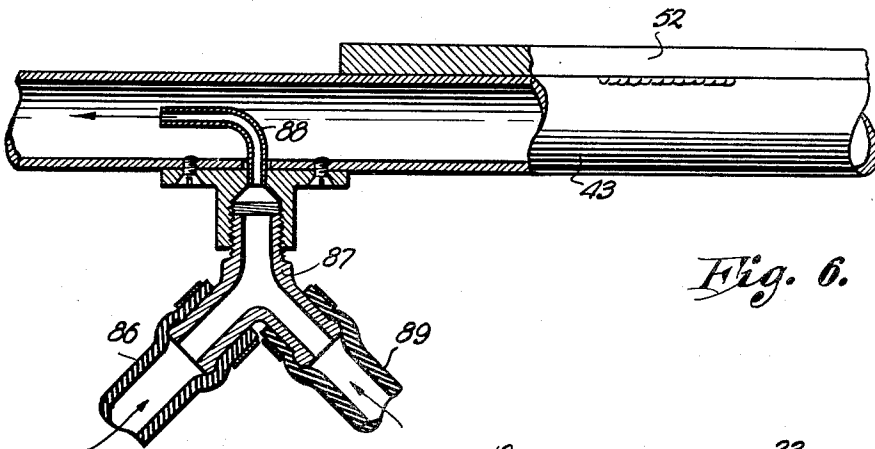


Fig. 6.

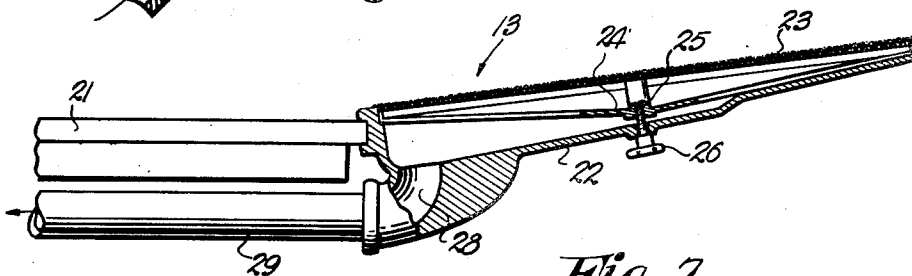


Fig. 7.

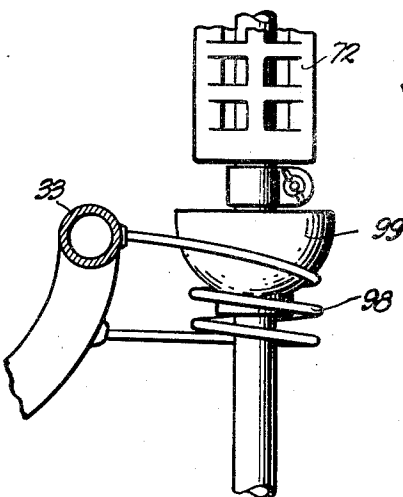


Fig. 8.

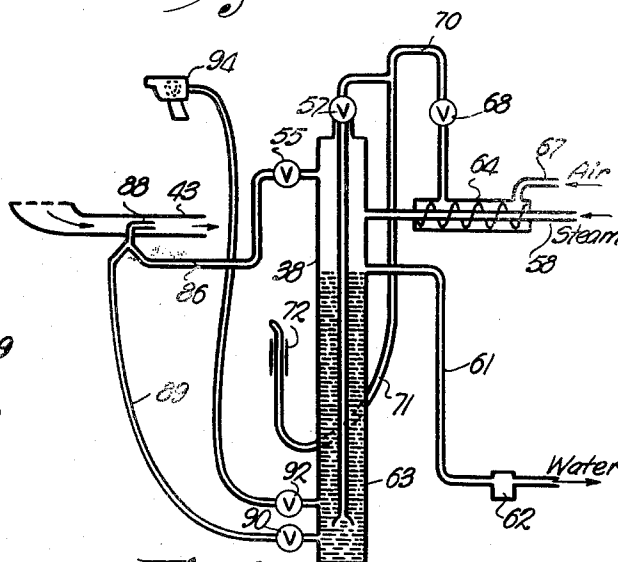


Fig. 9.

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1

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GARMENT SPOTTING MACHINE

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Original application March 18, 1950, Serial No. 150,504, now Patent No. 2,670,621, dated March 2, 1954. Divided and this application March 1, 1951, Serial No. 213,395

9 Claims. (Cl. 68—5)

The present invention relates in general to the removal of spots from fabrics and it deals more particularly with the construction of an improved spotting machine to be used for this purpose.

This application is a division of my co-pending application Serial No. 150,504, filed March 18, 1950, which issued into Letters Patent 2,670,621 on March 2, 1954.

It is the object of the invention broadly speaking to provide a machine which places at the disposal of its operator means for dealing with practically every kind of spot or stain encountered in laundry and dry cleaning practice, a machine which makes possible the removal of all such spots in the most expeditious and satisfactory manner.

To this end it is another important object to provide in a single machine a plurality of work surfaces which differ in size, shape, location and drainage or discharge facilities whereby spotting problems of many and widely differing types may be dealt with conveniently and rapidly by the operator.

A further object is to provide the foregoing work surfaces in such physical relationship that they may be used without interference, all of them, however, being readily accessible and being adjustable in position to suit the convenience of the operator.

Yet another object of the invention is to provide at least one work surface which is foraminous and has means for drawing a suction therethrough, which suction means is automatically rendered effective when the surface is put into use and rendered inactive when the use is discontinued.

A feature of the invention resides in the provision of main and auxiliary spotting tables in close proximity on the machine, each of said tables having both perforate and imperforate work surfaces; another feature resides in the unique construction of the tables which makes them peculiarly suited to the work for which they are designed. Still another feature is the provision of a novel basket which, in the course of treating a portion of a garment on either spotting table, protects the balance of the garment against injury.

Another object of my invention is to provide a spotting machine having facilities for treating a fabric disposed on any work surface with dry steam, wet steam, cold water or hot air at will. More particularly it is an object to provide a gun operable at will to discharge a spray of cold water, and a second gun selectively operable to discharge dry steam, wet steam or hot air. In the case of all of these fluids, it is an aim of the invention to make the rate or pressure of discharge readily controllable.

A further feature of the invention resides in the particular arrangement provided for holding the aforementioned guns when they are not in use whereby the guns always are readily available, and, when released, will automatically return to their rest positions in readiness for subsequent use.

Still another object is to provide a spotting machine

2

having means for generating from steam its own cold water for the treatment of thermo-setting water soluble spots, thereby eliminating the need for a separate, external water supply line.

A further object is to provide a spotting machine having self contained air heating means, thus eliminating the need for an auxiliary heater and making it possible to use air from an ordinary compressor or like source for spotting purposes; the form and construction of the air heating means is an important feature of the invention.

Yet another object is to provide a machine of the character indicated having means facilitating the cleaning of various parts which in the course of normal use collect lint, sediment and other foreign matter.

Other and further objects, together with the features of novelty whereby the objects are achieved, will appear in the course of the following description of the invention.

In the accompanying drawings which form a part of the specification and are to be read in conjunction therewith, and in which like reference numerals are employed to indicate like parts of the various views:

Fig. 1 is a front perspective view of my improved garment spotting machine,

Fig. 2 is a plan view of the machine,

Fig. 3 is an enlarged cross sectional view taken along the line 3—3 of Fig. 2 in the direction of the arrows,

Fig. 4 is an enlarged vertical cross section taken along the plane 4—4 of Fig. 1 in the direction of the arrows,

Fig. 5 is a horizontal cross section taken along the line 5—5 of Fig. 4,

Fig. 6 is an enlarged fragmentary cross section taken along the line 6—6 of Fig. 2 in the direction of the arrows,

Fig. 7 is a vertical cross section taken along the line 7—7 of Fig. 2,

Fig. 8 is an enlarged sectional elevation taken along the line 8—8 of Fig. 1 in the direction of the arrows, and

Fig. 9 is a schematic diagram of the air-water-steam and vacuum system employed in my machine.

In general, my machine comprises a base 10 having uprights which carry a chemical tray 11, a small spotting table 12, a larger spotting table 13 and a basket 14. As may be appreciated from Figs. 1 and 2, the larger spotting table (which hereinafter will sometimes be referred to as the main table) is spaced above the basket with its center line normally slightly forward of the center line of the basket, that is to say, slightly nearer the operator; the smaller spotting table (which will sometimes be referred to as the auxiliary table) is positioned above and rearwardly of the main table, while the chemical tray is above and behind the auxiliary table in "stair step" relationship.

Considering the construction more in detail, the base 10 is T-shaped having a tubular stem 10a extending longitudinally of the machine and joined at one end to the mid portion of a narrow crosswise housing 10b. Holes 10c provided at the extremities of these members make it possible to bolt or otherwise secure the base to the floor.

A hollow pedestal 16 extends vertically from the base and has telescoped into its upper end a post 17 which carries the main spotting table 13. The upper portion of the hollow pedestal is slit longitudinally to form a clamping collar and is provided with outturned ears 18 on either side of the slit; by means of a dog-leg lever 19 screw threadedly connected at one end to the ears, they may be drawn together to clamp the post or may be loosened to release same. Thus the main spotting table may be raised or lowered to the elevation most convenient for the operator and may be locked in adjusted position by lever 19.

The main table has a horizontal heel section **21** preferably formed of an imperforate slab of hard material which is highly resistant to the corrosive action of the chemicals used in the spotting operation. At the end of this is a tapered upwardly pitched nose section comprising a pan **22** with a foraminous cover **23** of stainless steel or the like.

As best seen in Fig. 7, the cover is held in place on the pan by a pair of crossed straps **24** located on its underside; these straps, each bent to form a shallow V, are secured at their ends to the margin of the foraminous cover, and at their intersection, have a welded on nut **25** adapted to receive a threaded stem extending through the bottom of the pan from knob **26**. By turning this knob to unscrew the threaded connection, the cover may be easily removed when desired to clean the pan of the lint, etc., carried therein in the normal use of the machine. The lowermost end of the pan is provided with a drain outlet **28** communicating with the pipe **29** which runs under the heel section of the table and connects to a flexible hose **30** leading to any suitable point of discharge.

Basket **14** comprises a generally oval panel **32** of canvas, or other suitable fabric, suspended rather loosely in hammock fashion from an open frame loop **33** whose ends are secured to a split collar **34** encircling post **17**. The collar is slidable up and down the post to adjust the elevation of the basket relative to the main spotting table, and by means of lever **35**, one end of which is screw threadedly connected to lugs on the split collar, the latter may be clamped tightly to the post to hold the basket in any selected position.

It is the function of the basket to receive depending portions of a garment being treated, thus to keep same off the floor and out of the way of the operator. As previously noted, the center line of the basket preferably is located rearwardly of the center line of the main spotting table (see Fig. 2) and it will be observed from Fig. 1 that the rear edge of the basket is somewhat higher than the forward edge, it having been found that this arrangement is best suited to catching garments during the manipulation thereof; at the same time it leaves a wide opening below the main table on the "operation side" of the machine to permit the operator easily to reach any depending portion of a garment in order to shift same to the top of the table.

The chemical tray **11** and the auxiliary spotting table **12** are supported on an upright tubular housing **38** that also functions as a steam separator as will be explained presently. This housing is spaced rearwardly of the pedestal **16** and is connected thereto by a cross brace **39**. As best seen in Figs. 4 and 5, a lug **40** extends forwardly from housing **38** and carries a bearing sleeve **41**. In the latter sleeve is a freely rotatable post **42** carrying at its upper end a horizontal pipe **43** which in turn supports the auxiliary table **12**. A lever arm **45** is attached to post **42** by means of a collar **46** having thumb screws **47**, the collar resting upon the upper end of the sleeve and forming an end bearing to support the post. By loosening the thumb screws, post **42** can be adjusted up or down relative to the collar in order to adjust the elevation of the auxiliary spotting table.

The forward end of pipe **43** opens into a shallow, sloping pan **49** which is covered by a foraminous oval plate or screen **50**; the opposite end of the pipe connects to a flexible hose **51** leading to any suitable point of discharge. Extending along the top of pipe **43** from the perforate nose and secured to the pipe is an imperforate table **52** preferably formed of hard, corrosion resistant material similar to that employed for slab **21**.

Post **42** being rotatable in sleeve **41**, it will be clear that pipe **43** and the auxiliary spotting table **12** are free to swing in a horizontal plane. A stop shoulder **53** (Fig. 5) on arm **45** limits its rearward travel but the table can be drawn forward from its rearmost position as shown by dotted lines in Fig. 2. When it is thus drawn forward,

arm **45**, of course, swings with the table and by means of link **54** opens valve **55** for a purpose presently to be described.

Returning now to the steam separator, this, as previously indicated, comprises a vertically elongated tubular housing **38**, the housing being closed at the bottom by a plug **56** and having a steam valve **57** screwed into the top. Steam is admitted into the separator from a supply line **58** and below the steam inlet **59** is a water overflow outlet **60** connected by line **61** to a suitable drain. A conventional trap **62** is provided in the latter line to prevent loss of steam therethrough. It will be understood that due to the extended surface of housing **38** that is exposed to ambient air, a portion of the steam admitted to the separator condenses, maintaining the separator filled with distilled water **63** to the level of the overflow outlet; above the surface of the water is steam, of course, the steam in the uppermost portion of the separator being substantially free from entrained moisture and hence referred to as "dry."

The steam supply line is connected to the separator via a heat exchanger having a housing **64** through which a steam tube **65** extends, this tube being provided with "screw thread" external fins **66** that form with the interior of the housing a spiral passageway from the air supply line **67** to the air shut-off valve **68**. Air traveling through this passageway when the valve is opened, is heated by fins, which, it will be understood, are heated by the steam within tube **65**. The spiral disposition of the fins provide a relatively long heated passageway in a short space and obtain maximum heat transfer to the air.

The outlet from steam valve **68** has a T fitting **69** screwed thereto and one branch of the T is connected by a pipe **70** to the outlet from the air valve **68**. The other branch of the T is connected to a hose **71** extending to a spotting gun **72**; as shown, this gun has an open discharge nozzle **72a** supported by a ventilated handle.

Both valves are normally closed and it will be seen from the foregoing that both have their outlets connected to the spotting gun via hose **71**. Air valve **68** can be opened under control of the foot pedal **73** which, by means of a shaft extending through base member **19a**, rotates a crank arm **74**; this exerts a thrust on the rod **75** which in turn pivots lever **76** and opens the valve. Pedal **78** through the medium of a hollow shaft **79** turns a similar crank when the pedal is depressed and thus exerts a thrust on rod **80** to control steam valve **57**.

The particular construction of the valves employed in my machine form no part of the present invention and hence they have not been detailed in the drawings. It is preferred, however, to employ a steam valve of the type disclosed in the co-pending application of Edwin G. Stevens and William C. Glover, Jr., Serial No. 222,024, filed April 20, 1951, and issued into Letters Patent 2,651,511 on September 8, 1953, to which reference may be had for a fuller understanding of their construction and operation. For purposes of the present description, it will suffice to say that upon initially depressing pedal **78**, valve **57** is unseated permitting dry steam to flow from the steam space at the top of the separator through hose **70** and discharge from nozzle **72a** of the spotting gun; as the pedal is depressed more, a throttle member **57a** (Fig. 4) advances into a restricted throat portion **57b** of the valve bore producing above and below the throttle member a pressure differential that causes water to rise in tube **82** and enter the steam stream through ports **57c**. Thus, not only can the rate of steam discharge be carried by pedal **78**, but also, depending upon the distance the pedal is depressed, the character of the steam can be varied progressively over a range extending from very dry to very wet. It will be noted that the lower end of the water tube **82** is provided with an enlarged cup-shaped inlet member **83**, the mouth of which is covered by a screen **84** to prevent entrance of foreign matter.

Valves **55** and **68** may be identical to valve **57** except it will be understood that they function simply as shut-

5

off valves, the tube 82 (which in the case of valve 57 accomplishes the mixing function referred to) being omitted in the case of valves 55 and 68. In other words, when pedal 73 is depressed, air under pressure from the supply line 67 is permitted to flow through the heat exchanger, thence through the valve 68 and hose 70, the heated air being discharged through the nozzle 72a of the spotting gun.

As previously explained, shut-off valve 55 is opened when the auxiliary spotting table is drawn horizontally toward the operator (see dotted lines, Fig. 2). This valve has its inlet connected to the steam space at the top of the separator and its outlet is connected through hose 86 to a Y fitting 87 mounted on the underside of pipe 43. Within the pipe is a small steam discharge tube 88 directed toward the discharge end of the pipe. The other branch of the Y fitting is connected by a hose 89 to a manually operable blow-out valve 90 set into the bottom of the separator.

Just above the latter valve is a second manually operable valve 92 which is connected by a hose 93 to a water spray gun 94. The spray gun may be of any suitable construction but preferably has a built-in shut-off valve adapted to be operated by squeezing a trigger 94a.

It will be convenient at this point to refer to the schematic diagram, Fig. 9 for a better understanding of the operation of the various parts of my machine. For purposes of description it will be assumed that valve 92 is open and the other valves all are closed which is their normal condition. Steam admitted from supply line 58 is, of course, present in the top of separator 38 and distilled water 63 condensed from the steam fills the bottom portion of the separator. As indicated earlier, and as will be obvious from the diagram, opening of the pedal-controlled steam valve 57 will deliver steam to the spotting gun 72 (this being in wet or dry condition depending upon how far the valve is opened). Likewise, opening of the pedal-operated air valve 68 will deliver to the gun air which has been heated by passage through the heat exchanger 64.

Operation of the trigger on the water spray gun 94 opens the valve indicated by dotted lines whereupon cold distilled water from the bottom of the separator (which water, it will be understood is subjected to the downward pressure of the steam above its surface) is discharged in a spray from the gun.

Each of these guns may be used in conjunction with either the main spotting table, not shown in the schematic diagram, or the auxiliary spotting table. If in using the latter, the table is drawn laterally toward the operator, this opens valve 55 as previously explained, whereupon steam from the separator is discharged through hose 86 and tube 88; by injector action, the steam discharge from tube 88 draws air in through the foraminous cover 50 and causes it to travel through tube 43 in the direction of the arrows, creating a strong suction at cover 50.

Sediment accumulated in the bottom of the separator may be removed periodically, as needed, by opening blow-out valve 90 and swinging the auxiliary spotting table to open valve 55. The flow of steam through the Y at the end of hose 86 now produces a suction on hose 89 which draws the sediment from the separator through hose 89 and discharges it with the steam through nozzle 88 and out the discharge end of pipe 43.

In using my machine the portion of the garment to be treated is drawn over either the main or auxiliary spotting table, depending upon the size of the garment portion involved and the type of treatment to be employed.

Certain non-water soluble stains such as ink, paint, medicine, perfume, finger nail polish, etc., require chemical treatment, the necessary chemicals and soaps being stored in bottles or other suitable containers in the tray 11; the spotted area is placed over one of the imperforate platforms 21 or 52 where the proper chemical is applied

6

to the fabric which then may be brushed, sponged, rubbed, scraped, or otherwise manipulated to loosen the stain. (The brushes, sponges, towels, chamois, etc. necessary for this purpose may conveniently be stored on tray 11 with the chemicals when they are not in use.) For flushing, feathering and drying the treated area it is moved forward over the foraminous screen at the nose of the board being used, and there is treated with one or both of the guns.

If, for example, the stain is one that would be set by heat (i. e. thermo-setting) the spray gun 94 is used to discharge cold water onto the spotted area and flush it thoroughly. Preferably this is carried out over the nose 50 of the auxiliary table which is drawn toward the operator during the process so a powerful suction draws the moisture, stain and solvent from the fabric. Use of the water spray gun reduces color bleeding from fugitive dyes to a minimum. After flushing, the vacuuming is continued while gun 72 is used to direct hot air through the fabric, which dries it almost instantly.

Moisture controlled steam from gun 72 ordinarily is used to remove water soluble spots only. For the average spot, wet steam is used for flushing the stain followed by dry steam for feathering out the spot and partially drying the fabric. Superior results and faster operation can be obtained in the case of some spots by first feathering around the edges of the spot with dry steam, then moving the nozzle of the gun spirally inward toward the center of the spot while gradually increasing the wetness of the steam and bringing the nozzle closer to the fabric; finally dry steam is used again to remove excess moisture. The latter technique has the advantage that it tends to drive any loosened sizing toward the center of the spot where it is flushed through rather than driving it toward the rim of the spot where it tends to pile up and leave a ring. Also the spot is confined to its own area, and spreading or splattering is eliminated. Use of the vacuum nose 50 likewise is valuable in preventing spreading of stains or moisture.

Using my apparatus, steam spotting may be carried out with excellent results even on velvets, plush, suede cloth, duvetyne, corduroy and other nappy materials which heretofore could not be treated satisfactorily; badly water stained or heavily sized rayons likewise can be spotted very successfully.

As previously indicated, drying of the spotted area can be completed by means of hot air delivered through gun 72. This may be used either in conjunction with the foraminous nose section 23 of the main spotting table, or the vacuum nose section 50 of the auxiliary table. Used with the latter, drying is almost instantaneous and will absolutely prevent water rings so that the need for very careful feathering is largely eliminated and the speed of handling correspondingly increased.

An important feature of my invention resides in the provision made for holding guns 72 and 94 where they are at all times readily available to the operator and may be put into use for the foregoing purposes with a minimum of manual movement; the guns also are arranged to return to their rest positions almost automatically in readiness for subsequent use so no lost motion on the part of the operator is involved.

In the case of water spray gun 94, the support comprises a rod 96 extending upwardly from one corner of the chemical tray, the upper end of the rod being bent over and provided with a hook to receive a depending coiled spring 97 which in turn carries the gun. When not in use, the gun thus is held out of the way of all operations carried on or in connection with the spotting tables. When needed, it may be grasped by the operator, drawn down to operating position, thus stretching the spring 97 which automatically restores it to rest position when it is released by the operator after use. The spring keeps hose 93 out of the way during use and permits free manipulation of the water spray gun.

The steam and hot air gun 72 is supported below the level of the main spotting table, (and hence also out of the way) by means of a spring loop 98 whose ends extend laterally and are welded or otherwise secured to the rim 33 of basket 14. Hose 71 is threaded through the loop and is encircled, adjacent the handle of gun 72, with a hemispherical bumper or bushing 99 formed of soft rubber of similar resilient cushioning material. The bumper normally rests on the top of the loop and the weight of the hose below the loop serves to hold the gun upright so it may be grasped easily. When the gun is lifted for use, the hose obviously is drawn upwardly through the eye formed by the spring loop. After use the operator simply drops the gun in a generally vertical direction toward the loop whereupon, due to the hose being threaded through the loop and having the major portion of its weight below the loop, the gun automatically is drawn and guided back to the correct rest position. The soft resilient character of bumper 99 plus the spring construction of the loop serve to cushion the blow of stopping the gun and thus prevent injury to the gun and the support.

From the foregoing it will be seen that my invention is one well adapted to attain all of the ends and objects hereinbefore set forth together with other advantages which are obvious and which are inherent to the apparatus.

It will be understood that certain features and sub-combinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the appended claims.

Inasmuch as various modifications of the invention may be made without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. In a garment spotting machine, a base, a table, a pedestal supporting the table above the base, said pedestal comprising a pair of telescoping sections one connected to the base and the other to the table whereby the height of the table can be adjusted, means for locking said pedestal sections together in any adjusted position, a collar encircling one of the pedestal sections and adjustable axially thereof, means for locking said collar to said last pedestal section in any adjusted position thereon, a generally horizontal shield below the table mounted on and supported by said collar, a hose having a spotting nozzle connected to one end thereof, a source of fluid under pressure connected to the other end of the hose for supplying fluid to said nozzle, and a support for said nozzle secured to said shield to move up and down therewith upon vertical adjustment of said collar.

2. In a garment spotting machine, a base, a table, a pedestal supporting the table above the base, said pedestal comprising a pair of telescoping sections one connected to the base and the other to the table whereby the height of the table can be adjusted, means for locking said pedestal sections together in any adjusted position, a collar encircling one of said pedestal sections and adjustable axially thereof, means for locking said collar to said last pedestal section in any adjusted position thereon, a generally horizontal shield below the table mounted on and supported by said collar, a spotting nozzle support on said shield adapted to move up and down therewith upon vertical adjustment of said collar, said spotting nozzle support having an eye the axis of whose opening is substantially vertical, a source of fluid pressure having a fixedly positioned outlet, a flexible hose extending downwardly from said outlet then curving back upwardly through said eye and having its free end connected to the end of an elongated spotting nozzle, said hose of sufficient length and weight so that when said nozzle is positioned on said support the weight below said support bal-

ances the nozzle above the support in an upright position, said hose being substantially smaller than the opening in the eye whereby it is adapted to travel upwardly through the eye when the nozzle is lifted for use.

3. A garment spotting machine as in claim 2 wherein said support comprises a helical coil of resilient material having its ends secured to the margin of said shield.

4. In a garment spotting machine, a base, a pedestal extending upwardly from said base, said pedestal comprising a pair of telescoping sections one of which is secured to the base, the other section being adjustable vertically relative to said one section, means for releasably locking said pedestal sections together in any adjusted position, an elongated table supported at one end on the upper extremity of said adjustable pedestal section and projecting laterally from the pedestal, a collar encircling one of said pedestal sections and adjustable axially thereof, means for releasably securing said collar to said last pedestal section in any adjusted position thereon, an elongated open-loop rigid frame supported at one end on the collar and projecting laterally therefrom with the longitudinal axis of the frame approximately paralleling the longitudinal axis of the table, a web of flexible material within said frame and having its edges secured to the frame to form a hammock below the table, a hose having a spotting nozzle connected to one end thereof, a source of fluid under pressure connected to the other end of the hose for supplying fluid to said nozzle, said nozzle constructed and arranged to be removably carried on said support, and a support for said nozzle secured to one longitudinal edge of said frame to move up and down with the frame upon vertical adjustment of said collar.

5. In a garment spotting machine, a base, a pedestal extending upwardly from said base, said pedestal comprising a pair of telescoping sections one of which is secured to the base the other section being adjustable vertically relative to said one section, means for releasably locking said pedestal sections together in any adjusted position, an elongated table supported at one end on the upper extremity of said adjustable pedestal section and projecting laterally from the pedestal, a collar encircling one of said pedestal sections and adjustable axially thereof, means for releasably securing said collar to said last pedestal section in any adjusted position thereon, an elongated open-loop rigid frame supported at one end on the collar and projecting laterally therefrom with the longitudinal axis of the frame approximately paralleling the longitudinal axis of the table, a web of flexible material within said frame and having its edges secured to the frame to form a hammock below the table, a spotting nozzle support secured to one longitudinal edge of said frame to move up and down with the frame upon vertical adjustment of said collar, said spotting nozzle support having a spotting-nozzle supporting eye the axis of whose opening is substantially vertical, a source of fluid under pressure having a fixedly positioned outlet, a flexible hose extending downwardly from said outlet then curving back upwardly through said eye and having its free end connected to the end of an elongated spotting nozzle, said hose of sufficient length and weight so that when said spotting nozzle is positioned on said support the weight of the hose below said support balances the nozzle above the support in an upright position, said hose being substantially smaller than the opening in the eye whereby it is adapted to travel upwardly through the eye when the nozzle is lifted for use.

6. A garment spotting machine as in claim 5 wherein said support comprises a helical coil of resilient material having its ends secured to said frame at longitudinally spaced apart points thereon.

7. In a spotting machine, a work table, a support for said table, an elongated spotting nozzle, a rest for the nozzle disposed below the level of said table, said rest formed to provide an annulus with a central eye the axis of whose opening is substantially vertical, a source of fluid under pressure having an outlet fixedly positioned

above the level of said rest, a flexible hose extending downwardly from said outlet to a point below the level of the rest then curving back upwardly through said eye and having its free end connected to the end of said nozzle, said hose of sufficient length and weight that when said nozzle is positioned on said support the weight of the hose below the support balances the nozzle above the support in an upright position, said hose being substantially smaller than the opening in the eye whereby it is adapted to travel upwardly through the eye when the nozzle is lifted for use.

8. A machine as in claim 7, including a member on the support for said work table, said rest mounted on said member and said eye comprising a helical coil of resilient material having its ends connected to said member.

9. A machine as in claim 7 including a bushing of resilient rubber-like material on said nozzle, said hose entering the nozzle through said bushing and said bushing adapted to seat against said eye when the nozzle is at rest.

References Cited in the file of this patent

UNITED STATES PATENTS

178,012	Koelsch	May 30, 1876
702,242	Oneil	June 10, 1902
761,468	Ford	May 31, 1904
809,170	Broadwell	Jan. 2, 1906
955,526	Miller	Apr. 19, 1910
957,537	Bean	May 10, 1910
1,634,471	Cox	July 5, 1927
1,704,472	Grandjean	Mar. 5, 1929
1,723,439	Petty	Aug. 6, 1929
2,024,734	Hoskins	Dec. 17, 1935
2,031,026	Barker	Feb. 18, 1936
2,174,387	Morken	Sept. 26, 1939
2,279,984	Goodwin	Apr. 14, 1942
2,284,572	Holder	May 26, 1942
2,363,956	Glover	Nov. 28, 1944
2,399,576	Shoop	Apr. 30, 1946
2,479,925	Glover	Aug. 23, 1949
2,483,834	Maindal	Oct. 4, 1949
2,528,095	Ward	Oct. 31, 1950
2,565,133	Keyes	Aug. 21, 1951
2,657,566	Richterkessing	Nov. 3, 1953