

July 23, 1935.

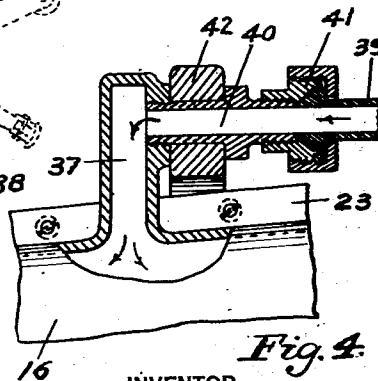
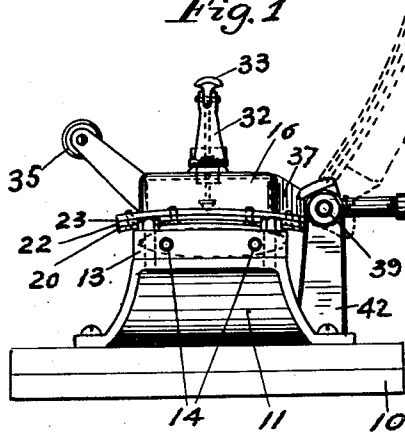
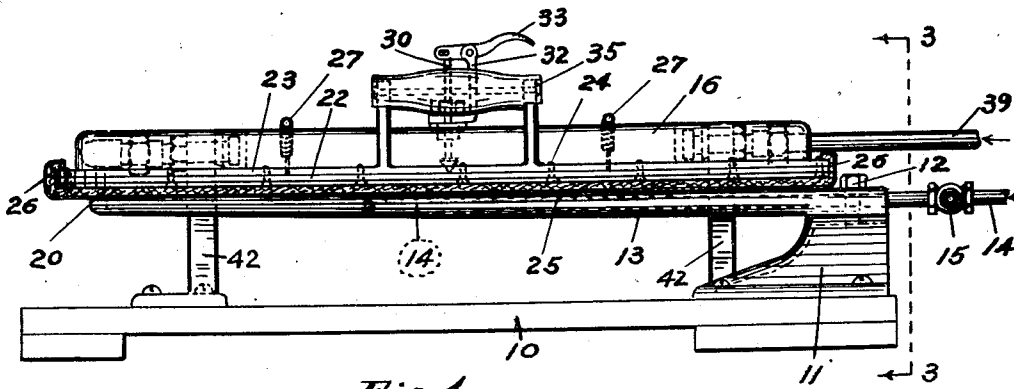
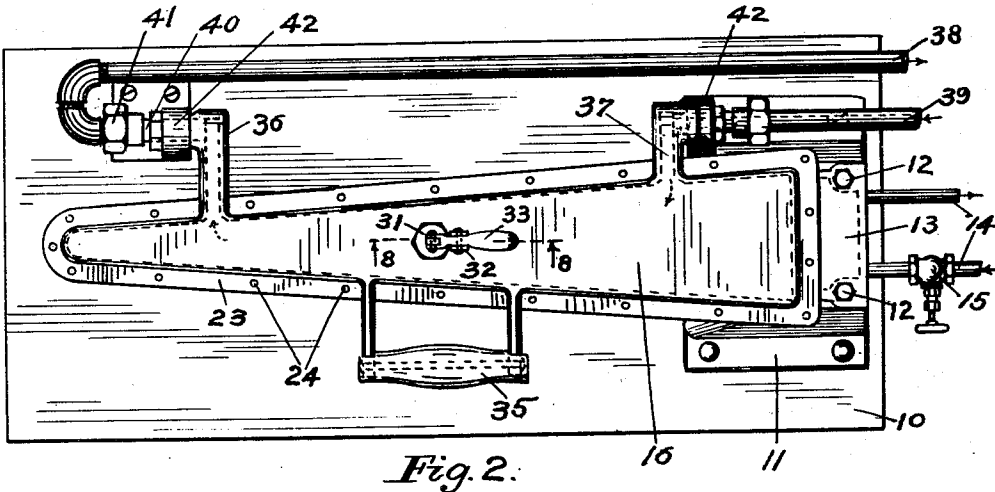
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2,008,956

TIE PRESSING MACHINE

Filed Aug. 6, 1931

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

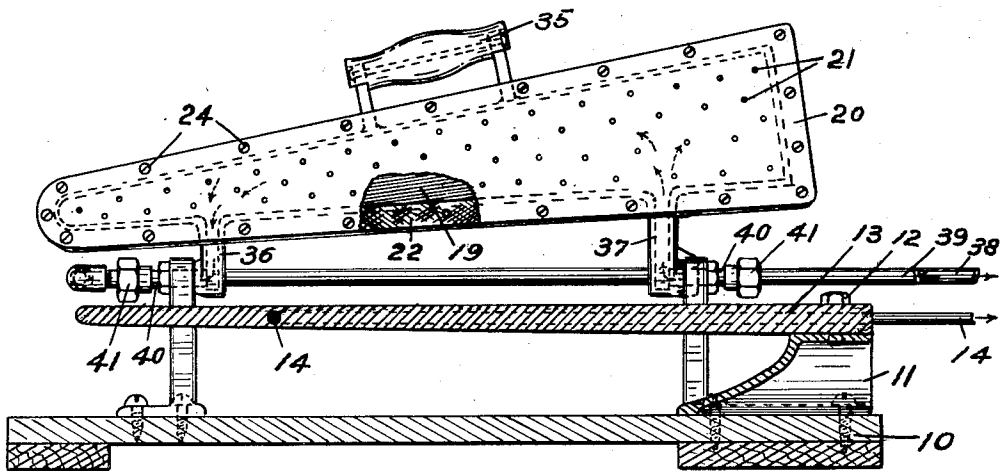


Fig. 5.

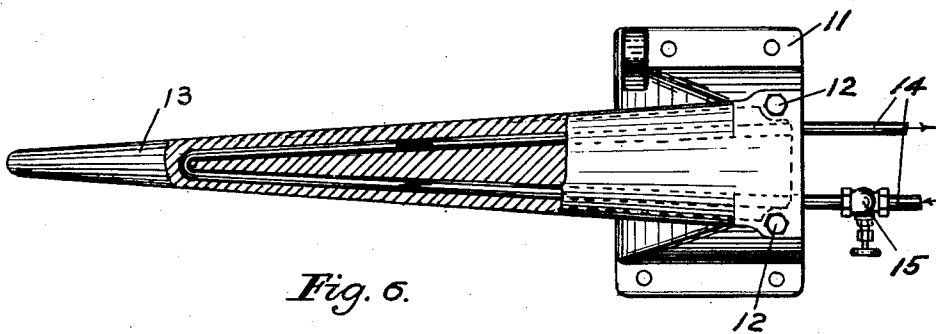


Fig. 6.

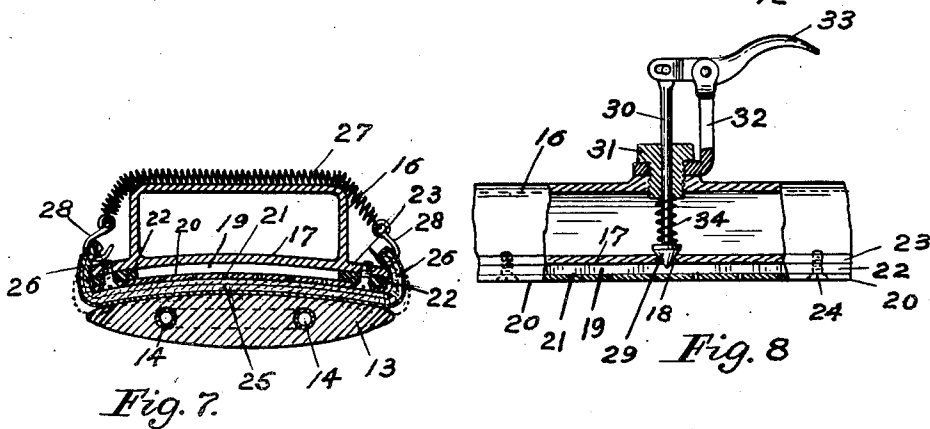


Fig. 7.

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TIE PRESSING MACHINE

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Application August 6, 1931, Serial No. 555,466

3 Claims. (Cl. 223—17)

This invention relates to renovating and pressing equipment and the primary object is to provide an efficient, practical and highly novel type of machine that is particularly designed for the purpose of pressing and renovating neckties. More particularly the object is to provide an improved machine having a stationary unit of the anvil type cooperating with a hinged or swingable padded presser shoe, and wherein both of said units are heated by steam, or similar fluid, for the purpose of smoothening the garment under treatment and reviving or renewing its original appearance and condition. In the present instance the garment supporting anvil unit is provided with an elongated tapered horn that is so designed that it will slidably receive the opposite ends of the tie, and for that purpose is made of a highly polished or smooth metal material but is not perforated, and does not permit the steam conduits within to discharge to the garment receiving surface, and consequently there is no moisture or condensation present to moisten the horn surface and thus interfere with the on and off movement of the tie. These and other objects will be more fully disclosed in the course of the following specification, reference being had to the accompanying drawings, in which:

Fig. 1 is a front elevation of the machine, with the presser shoe down, and with the pad member thereof sectioned away for purpose of illustration.

Fig. 2 is a top or plan view of the machine as shown in Fig. 1, the pad in this instance being entirely removed.

Fig. 3 is a sectional end elevation of the machine, as seen on the line 3—3 in Fig. 1.

Fig. 4 is an enlarged detail sectional view of one of the shoe housing coupling units, also illustrating the gland seal connection for the adjoining steam tube.

Fig. 5 is a sectional elevation of the machine, taken longitudinally thereof, and showing the presser shoe in its raised position and broken away in part to show a certain sealing gasket.

Fig. 6 is a detail plan view of the anvil type support unit, and showing the elongated horn member thereof partly in section to disclose the imbedded steam tube.

Fig. 7 is an enlarged detail sectional elevation through the pressing units when in closed or operative position.

Fig. 8 is a detail sectional elevation, on the line 8—8 in Fig. 2, to illustrate an acceptable type of quick release hand valve for the steam shoe.

Referring to the drawings more particularly and by reference characters, 10 designates a base plate which supports the various parts of the machine and to one end of which is secured an anvil type standard or bracket 11, to which is secured, as by bolts 12, an elongated, tapered horn 13. This horn is elliptic in cross section, as shown in Fig. 7, and is tapered toward the end opposite the standard 11, and has a rounded point so as to fit into the ends of a conventional cravat tie which is of course pulled over the horn to fit snugly thereon before the steam shoe pressure and steam are applied. The horn itself is continuously or intermittently heated, as may be desired, by steam or other hot fluid that is passed through a conduit or tube 14 that is cast or otherwise contained within the horn, as shown particularly in Figs. 5, 6, and 7, the steam flow being regulated by a valve 15 controlling the inlet side of the pipe. From the structure thus far described it will be seen that a tie end pulled over the horn 13 will readily conform to the contour of the horn thus initially reshaping the tie, that the horn being smooth and metallic will offer but little resistance to the fitting action, and being imperforate will not permit the escape of steam from the horn tube 14 to prematurely moisten the tie or hinder its being properly pulled and adjusted into correct position on the horn.

The presser shoe comprises an elongated cast housing 16 conforming generally in shape to but somewhat broader than the horn 13. This housing has a transversely curved bottom wall or partition 17 having a central valve controlled port 18 (Fig. 8) through which steam may escape, when the valve is open, to a flat chamber 19 formed by the partition 17, a plate 20 having distributed perforations 21, and a gasket 22 disposed between the outer edge portion of the plate 20 and a flange extension 23 of the plate 17, bolts 24 being employed to securely fasten the members 20, 22, and 23 together. A pad 25, having upturned flange portions 26, snugly fits about the lower part of the presser shoe and is detachably secured thereto as by springs 27 having end hooks 28 (see Figs. 1 and 7). This pad receives and distributes the steam ejected through the perforations 21, so that the moisture and high temperature will be properly applied to the tie.

The passage of steam from the main presser shoe housing, through the port 18 to the chamber 19, may be controlled in any suitable manner although it is preferable to employ a quick acting, self closing valve, and for purpose of illustration

I have shown a valve head 29, engageable with the port 18, and carried on a rod 30 slidable in a bearing nut 31 secured in the upper wall of the shoe casting. This nut secures a bracket 32 that 5 pivotally supports a hand lever 33 arranged to open the valve. When the lever is released the valve will reclose under the action of a spring 34 and the steam pressure within the shoe. It may here be noted that the hand lever 33 is disposed 10 in a convenient position adjacent a handle 35 by which the shoe proper is raised and lowered.

The presser shoe casting 16 is provided at its rear with two hollow arm extensions 36 and 37, which connect, respectively, to steam inlet and 15 outlet pipes 38 and 39, through coupling tubes 40 and sealing glands 41. The couplers 40 are journaled in bracket arms 42, carried by the base plate 10, and the glands 41 are of such construction as to permit the tubes 40 to be oscillated, 20 with the swinging movement of the presser shoe, with respect to the pipes 38 and 39 which are non-rotatable. Flexible tubes may of course be substituted for rigid pipes 38 and 39, thus eliminating the necessity for joint glands, although the construction illustrated and first referred to is 25 believed to be preferable.

The operation of the device may be described as follows: When the device is in use, hot steam is constantly being passed through the pipes 14, 30 38, and 39 so that the horn 13 is constantly heated and so that the large presser shoe chamber is constantly filled with steam. With the presser shoe in its raised position, as shown in Fig. 5, the tie is pulled onto the horn 13 with its 35 face portion uppermost and with the seams and lining at the back disposed against the under side of the horn. As the horn is imperforate and smooth as well as tapered, the tie will of course fit snugly upon it and there will be no moisture or other condition to prevent its being slipped 40 into place. The presser shoe is now brought down into engagement with the horn, as shown in Figs. 1, 2, 3, and 7, and while in this position the valve 29 momentarily opens to permit the 45 escape of steam from the large presser shoe chamber to the flat chamber 19 immediately under it. This steam then escapes through the perforations 21 to the pad 25 which absorbs and distributes it evenly over the entire upper surface 50 of the tie. After the valve 29 has been released so as to close under the action of the spring 34, pressure is applied to the handle 35 so as to firmly press the shoe against the horn 13. The pad 25 is sufficiently soft or flexible so that when 55 squeezing pressure is brought to bear upon it its side portions will move down and impinge against the side edges of the horn 13, as indicated by dotted lines in Fig. 7, so as to assist in

defining and creating a crease at the edges of the tie.

In the meantime a part of the steam contained within the pad 25 has passed to the tie material proper so as to enliven or refreshen the surface 5 thereof, and the high temperature which is also imparted to the tie material will, in conjunction with the applied pressure, entirely remove all wrinkles in the material. The presser shoe is then again lifted and the tie is retained on the 10 horn 13 until all traces of moisture have been removed under the action of the heat of the horn. After one end of the tie has been pressed in the manner above indicated it is removed from the horn and the other end of the tie is applied 15 and treated in the same manner.

It is further understood that suitable modifications may be made in the structure as disclosed, provided such modifications come within the spirit and scope of the appended claims. 20 Having now therefore fully illustrated and described my invention, what I claim to be new and desire to protect by Letters Patent is:

1. A tie pressing machine comprising an imperforate, elongated horn that is tapered and 25 smooth surfaced to snugly receive the tubular tie when the same is drawn thereover, and having side edges to engage the side creases of the tie, means within the horn for heating the same, a presser shoe movable toward the horn and having 30 a pad for contact therewith, said pad being wider than the horn to impinge on the side edges thereof and thereby define side creases in the tie, and means for introducing live steam to the pad. 35

2. A tie pressing machine comprising an imperforate, elongated horn that is tapered and smooth surfaced to snugly receive the tubular tie when the same is drawn thereover, and having 40 side edges to engage the side creases of the tie, means within the horn for heating the same, a presser shoe movable toward the horn and having a pad for contact therewith, and means for introducing live steam to the pad, said pad being 45 wider than the horn and of sufficient resiliency to impinge against the edges thereof to define the side creases in the tie when pressure is brought to bear upon the presser shoe.

3. A tie pressing machine comprising an anvil type standard having a horizontally extending, 50 elongated, tapered horn, adapted to slidably receive one end of a tubular tie, means for heating the horn, a presser shoe swingably disposed adjacent to and for contact with the horn, hinge devices for mounting the presser shoe, said devices being tubular to permit the passage of 55 steam therethrough to the presser shoe.

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