July 24, 1951 H. T. WATTLES 2,561,764

NECKTIE PRESSING FORM

Filed April 27, 1948

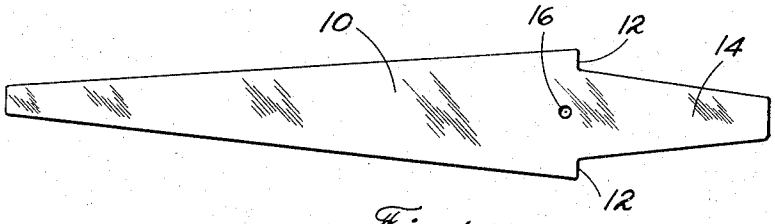


Fig. 1

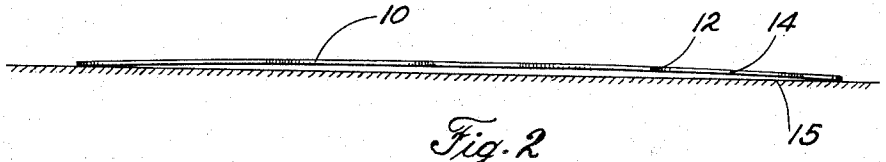


Fig. 2

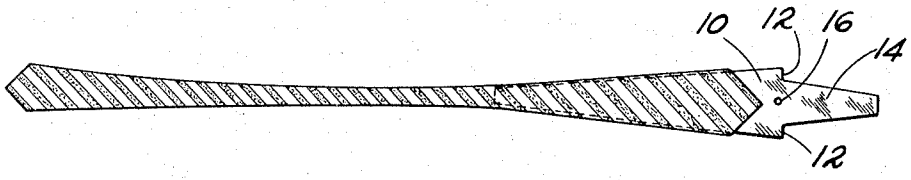


Fig. 3

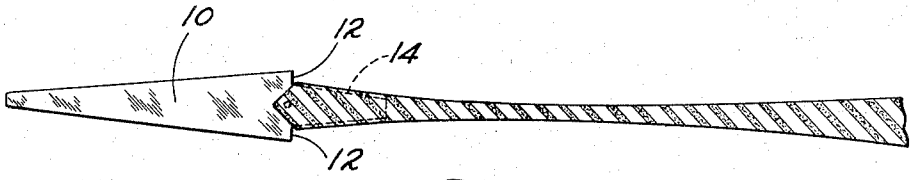


Fig. 4

INVENTOR.
HELEN TODD WATTLES

BY

Bosworth + Sessions

ATTORNEYS

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NECKTIE PRESSING FORM

Helen Todd Wattles, Pittsburgh, Pa.

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2 Claims. (Cl. 223—65)

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This invention relates to a form for pressing neckties, and a general object of the invention is to provide an improved form of this character which can be manufactured at relatively low cost and which is convenient, efficient and durable in use.

The useful life of four-in-hand neckties can be substantially increased if they are cleaned and pressed, particularly in the area of the knot and immediately adjacent thereto. The present invention provides a convenient form on which the necktie can be placed for both the cleaning and pressing operations. I have discovered that these operations, and particularly the pressing operation, can be carried out most efficiently and with the least likelihood of damage to the fabric of the necktie by employing a thin, resilient metal form adapted to be inserted into the tie between the face of the necktie and the reinforcing lining material. I have found that in order to avoid damage to the tie during the cleaning operation, the metal should be resistant to corrosion by water and ordinary cleaning fluids. Also, the efficiency of the pressing operation and the ease with which it can be carried out are substantially increased by constructing the form of a metal which has a relatively low thermal conductivity and which is provided with a surface having good reflective characteristics particularly with respect to infra-red radiation. These two factors together insure the concentration of the heat of the pressing iron at the area where it is required and make possible the rapid and effective pressing of the tie without the necessity of employing an excessively hot iron. Furthermore, the infra-red reflectivity reduces the rate of heat transfer into the pressing form, and the low coefficient of thermal conductivity prevents the rapid travel of heat longitudinally of the form. Thus, the portions of the form other than those immediately beneath the iron remain relatively cool, and therefore the form can be handled with little chance of burning one's hands.

In order to obtain the desired results, I prefer to make my pressing form out of a resilient metal having a thermal conductivity of preferably about 0.150 to 0.160 watt/cm./degree C. at 100° C. and of not more than about 0.250 watt/cm./degree at 100° C. as given in Bureau of Standards paper RP 669 entitled "Thermal Conductivity of Some Irons and Steels," see Table 2, page 447. The metal must also be capable of taking a commercial finish having good reflective characteristics, especially for infra-red radiation and should be able to retain that finish and reflectivity under conditions of use. These requirements are met by cold rolled 18-8 stainless steel having the usual good finish imparted to it by the mill rolls. Stainless steel, with a commercial cold rolled finish, provides sufficient infra-red reflectivity. A high polish is not necessary, for the important factor is not smoothness of surface but that the surface be clean and free from corrosive films. My best information is that stainless steel of this character has about 50–60% infra-red reflectivity.

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Stainless steel under the service conditions encountered is non-corrosive and retains the clean surface necessary to maintain this degree of infra-red reflectivity. Carbon steels, on the other hand, are subject to corrosion and tend to pick up oxide films which impair the reflectivity of the metal; for this reason their use is to be avoided. The thermal conductivity of 18-8 stainless steel is about 0.150 to 0.160 watt/cm./degree C.; this conductivity is only about 25% that of basic open hearth steel and 30% that of ordinary carbon steel. It is also within my invention to use medium and high chromium steels which have thermal conductivities of about 40–50% that of ordinary carbon steels, i. e., having thermal conductivities of the order of 0.200 to 0.210 watt/cm./degree C.

The drawings illustrate a preferred form of necktie pressing form embodying my invention; Figure 1 is a plan view of a necktie pressing form made according to my invention; Figure 2 is a side elevation of the device of Figure 1 in position upon an ironing board or other supporting surface; Figure 3 diagrammatically illustrates the operation of pressing the large end of a four-in-hand necktie on a form embodying my invention; and Figure 4 illustrates the operation of pressing the small end of such a necktie.

As shown in Figure 1, a necktie form embodying my invention comprises a member composed preferably of 18-8 stainless steel, high chromium steel or other resilient metal having the reflectivity and heat transfer characteristics noted above and comprising a large tapered portion 10 adapted to substantially conform to and be inserted into the large end of a four-in-hand necktie. The large end 10 terminates in an intermediate shoulder 12 from which the small end portion 14 projects. The small end portion 14 has a different degree of taper than the large end portion 10, the angle of the sides of the small end portion being approximately 14°, whereas the angle between the sides of the large portion 10 is approximately 10°. These angles are such as to

conform substantially to the majority of ready-made four-in-hand neckties. The member is conveniently stamped from tempered sheet material having a thickness of, for example, about 0.020 inch, and the edges are then made smooth and slightly rounded to prevent injury to the ties and to the hands of the user.

As shown in Figure 2, the pressing form is longitudinally bowed; the amount of the bow is slight, but is sufficient to make it easy to grasp the form and pick it up from an ironing board or other flat surface. The bow makes the central portion stand up above the supporting surface as shown in Figure 2, or if the other side of the form is up, one or both of the end portions are raised sufficiently above the supporting surface 15 to enable the form to be grasped readily. When the iron is applied to the necktie during the pressing operation, the bow in the form flattens out, only a slight amount of pressure being required to accomplish this result. However, the resilience of the metal is such that as soon as the pressure of the iron is released, the form resumes its bowed shape.

An opening 16 is provided in the form adjacent the juncture of the portions 10 and 14. This opening may be used to hang the form on any convenient hook, and is provided at this point because this area of the form is seldom used in pressing operations. Thus, the aperture ordinarily will not cause a mark in a necktie being pressed on the form.

From the foregoing description of a preferred form of my invention, it will be evident that I have provided a simple and efficient tie pressing form which can be used for cleaning and pressing both the large and the small ends of ordinary four-in-hand neckties. The resilient and light metal form can be handled easily, only those portions of the form immediately adjacent the pressing iron reaching temperatures high enough to be uncomfortable to the touch. The high reflectivity and low heat transfer characteristics of the material insure efficient pressing, and the preferred stainless steel is resistant to corrosion by water, steam and ordinary organic cleaning fluids. Thus, the possibility of damage to or soiling of the necktie by reason of corrosion of the form is obviated.

I claim:

1. A necktie pressing form comprising a thin, flat, resilient sheet metal member longitudinally tapered to conform substantially to and adapted to be inserted within a necktie to be pressed, said member being bowed in the direction of its longitudinal axis whereby it can be picked up readily from a flat surface, having smooth lateral surfaces, being composed of a metal having a thermal conductivity not exceeding about 0.250 watt/cm./degree C. at 100° C., whereby to confine the heat of the iron substantially to the pressing area, and having a pressing surface with about 50% reflectivity with regard to infra-red radiation, the bowing being impermanent in the sense that the form flattens out temporarily when the pressure of an iron is applied during the pressing operation.

2. A necktie pressing form as in claim 1 comprising a thin, flat, resilient sheet metal member composed of cold rolled 18-8 stainless steel having a thickness of approximately 0.020 inch and having a long tapered portion extending longitudinally of the form from a point intermediate the ends thereof with its sides converging to define an included angle of approximately 10°, a transversely extending shoulder intermediate the ends of the form at the base of said long tapered portion, and a short tapered portion extending longitudinally of the form in the opposite direction from said shoulder with its sides converging to define an included angle of approximately 14°.

HELEN TODD WATTLES.

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