

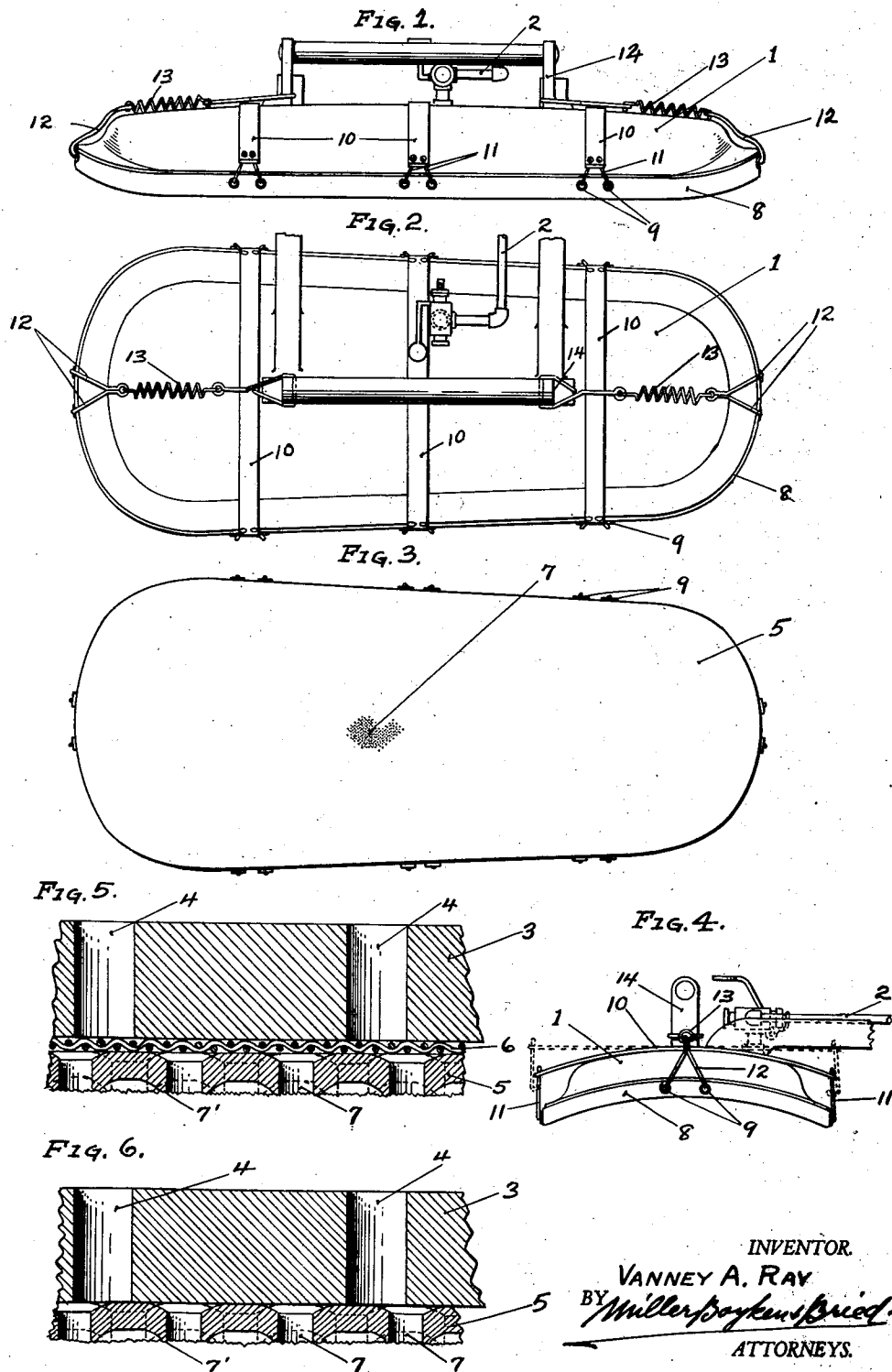
June 23, 1931.

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1,810,984

PRESSING APPARATUS

Filed March 24, 1930



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# UNITED STATES PATENT OFFICE

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## PRESSING APPARATUS

Application filed March 24, 1930. Serial No. 438,404.

This invention relates to garment pressing machines, and especially to such machines as designed for pressing men's pants and wherein the pants are laid on a cloth-padded table or ironing board member (termed a "buck") and a similarly padded clamping member (termed a "head") is brought down tightly upon the pants while hot steam is released from within the head, all as is well known. The principal object of the present invention is to provide improvements in which the head is covered with a permanent sheet of metal instead of the usual cloth padding and the metal is of such a character that any tendency to make the garment shine is avoided. Other objects will appear in the following specification and accompanying drawings.

Since the invention relates only to the head of such a machine as outlined, the drawings are restricted to the head.

Fig. 1 is a side elevation of the head of a pants pressing machine fitted with my improved features.

Fig. 2 is a plan view of Fig. 1.

Fig. 3 is a bottom view of Fig. 1.

Fig. 4 is an end view of Fig. 1.

Fig. 5 is a greatly enlarged cross section of the clamping plate of the head showing my improved metal facing.

Fig. 6 is a view similar to that of Fig. 5 showing a modified assemblage of the elements.

The heads or clamping plates of these machines are as mentioned usually covered with cloth padding through which the steam penetrates in pressing the garment and this necessarily takes away some of the efficiency of the machine for the softer the pressing surfaces the more difficult to produce a smooth, flat garment, and to overcome this attempts have been made to use a metal pressure sheet against the goods, but unless this were especially formed at great expense the tendency was to make the goods shine.

In experimenting with such machines in actual business of pressing garments I have discovered that if the heavy metal body of the clamping plate is covered over its working face with a thin sheet of non-corrodible metal

which is perforated over its entire surface with very minute holes all punched in the plate in a manner to leave many thousands of small burrs on the outside of the sheet, that when the size and proportions of the holes are right an improvement of great value is effected inasmuch as it entirely avoids the cloth padding, gives a hard surface, and therefore results in perfectly flat work, the unusually fine perforating gives even steam distribution and the hundreds of thousands of small burr effectually avoid any tendency to make the goods shine. Besides the above the covering sheet is cheap to manufacture and is easily applied to any pressing machine of the character mentioned.

In the drawings 1 represents the clamping member or head which is of oval or ironing board shape and is usually concaved at its under-side as indicated in Fig. 4 so as to fit over the complementarily curved upper surface of the ironing board or "buck" not shown.

This head is usually hollow or provided with internal passages and supplied with steam through a pipe or hose 2 arranged to move with the head, and the lower wall 3 of the head is pierced with holes 4 about  $\frac{1}{8}$  of an inch in diameter spaced about one inch apart over which a wire screen is ordinarily placed followed by the cloth packing but which in my construction is covered with a plain very finely perforated burr-surfaced plate 5 as described, which may have the fine wire mesh screen 6 left between it and the lower wall of the head as shown in Fig. 5, or may be placed directly in contact with the lower wall of the head as shown in Fig. 6.

My special plate 5 is made of aluminum, Monel metal or other non-rusting thin sheet metal and the entire area of the plate perforated with very fine holes as indicated at 7 in Fig. 3. These holes have been found to work well when of about  $\frac{1}{64}$  of an inch in diameter and spaced about  $\frac{1}{4}$  inch centers. The holes in adjacent rows are staggered and all are punched from the top side of the sheet so as to leave small annular burrs 7' projecting downward against the goods to be pressed.

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Due to the relation of perforations to their spacing the rear (top) of the sheet is not perfectly smooth but presents myriads of minute elevated portions so that even if used directly against the pressure plate 3 of the head as shown in Fig. 6 nevertheless the steam from relatively large holes 4 is able to freely travel laterally in the thousands of small channels and emerge from the apertures 7 in even distributed condition.

The staggering of the minute apertures is thought largely responsible for the evenness of the effects produced.

However, since most machines now use a piece of woven wire mesh 6 against the lower wall of the head under the cloth padding, this mesh may be left in place after removing the cloth and my improved metal surface sheet may be placed directly against it as indicated in Fig. 5 for the only effect of it would be to slightly increase the steam distribution.

My improved surface sheet is formed at its edge with an upwardly turned flange or margin 8 to fit over the edges of the head and perforated at intervals and finished with grommets 9 for tightly clamping in place to the head.

Various ways will suggest themselves for clamping the sheet 5 to the head, but I have found a series of heavy flat spring bars 10 lying across the top of the head and each supplied at its ends with one or more wire hooks 11 pivotally suspended in holes in the springs, to form an effective means of quickly clamping the plate in place, as the springs are simply forced down at their ends and the hooks engaged into the grommets.

Similar hooks 12 may be used at the ends of the sheet and anchored by spiral springs 13 to the handle 14 of the head.

Having thus described my invention and the manner of its use what I claim is:—

1. In a garment steaming and pressing machine of the character described, a sheet metal covering arranged to fit over the face of the presser head finely perforated and having burrs around the perforations on its face adapted to contact with the garment to be pressed and having undulations on the rear of the sheet for lateral passage of steam between the sheet and the presser head.

2. In the construction specified in claim 1, said perforations being staggered so as to preserve slight lateral steam passages in various directions at the back of the plate.

3. A covering plate formed to fit over the face of a steaming and pressing machine head comprising a thin metal sheet finely perforated over its working surface and having burrs around the perforations on the outer surface of the sheet.

4. In a pressing machine of the character described, a thin perforated sheet metal face covering for the presser head provided with rearwardly turned margins formed with hook

engaging openings, flat springs extending across the head provided with pivotally suspended hooks at their ends engaging the margins of the sheet.

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