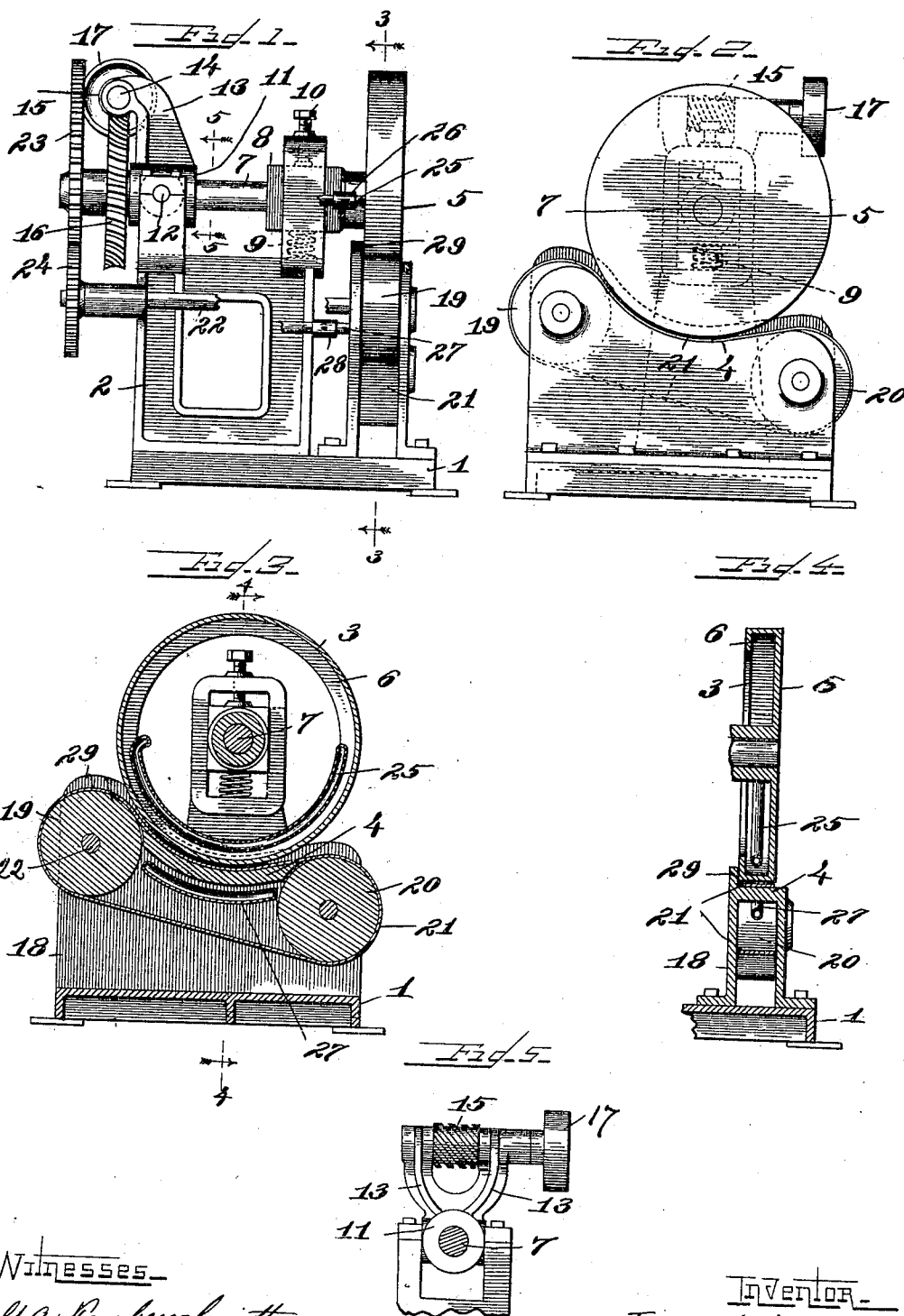


No. 838,245.

PATENTED DEC. 11, 1906.

I. ERICKSON.
CLOTH PRESSING MACHINE.
APPLICATION FILED OCT. 26, 1903.



WITNESSES—

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UNITED STATES PATENT OFFICE.

IVAR ERICKSON, OF CHICAGO, ILLINOIS.

CLOTH-PRESSING MACHINE.

No. 838,245.

Specification of Letters Patent.

Patented Dec. 11, 1906.

Application filed October 26, 1903. Serial No. 178,475.

To all whom it may concern:

Be it known that I, IVAR ERICKSON, a citizen of the United States, and a resident of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Cloth-Pressing Machines, of which the following is a specification.

This invention relates to cloth-pressing machines.

A primary object of the invention is to provide a machine particularly designed and adapted for pressing the edges of garments, particularly where the same are doubled or folded in which will be of simple construction, efficient in its operation, and will have a large capacity.

A machine of my invention consists of the various features, combinations of features, and details of construction hereinafter described.

In the accompanying drawings a machine of my invention is fully illustrated.

Figure 1 is a rear view of a pressing-machine of my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a sectional view on the line 3 3 of Fig. 1. Fig. 4 is a sectional view on the line 4 4 of Fig. 3, and Fig. 5 is a sectional view on the line 5 5 of Fig. 1.

Referring now to the drawings, the frame of my improved machine consists of a base portion 1 and an upright standard 2.

The pressing devices consist of a drum or roller 3 and a bed-plate 4, the surface of which is circular and which extends into close proximity to the surface of the drum or roller 3.

In the preferable construction shown the outer side of the drum or roller 3 is closed by means of a continuous web 5, and said drum or roller is provided at its inner side with a flange or web 6, which extends inwardly from the rim thereof. Said drum or roller 3 is secured to a shaft 7, revolvably mounted in suitable bearings in the standard 2, preferably in such manner that said drum or roller 3 will be adjustable toward and from the bed-plate 4. In the preferable construction shown said shaft 7 is supported at its end adjacent to the drum or roller 3 in a bearing-box 8, fitted to and vertically movable in a suitable guide-slot in the frame-standard 2. A spring 9, inserted beneath said bearing-box 8, forces said bearing-box upward, and a screw

10, threaded into the machine-frame and bearing against the upper side of said bearing-box, affords means for adjusting said bearing-box downward against the force of said spring. The opposite end of the shaft 7 is provided with a bearing in a block 11, which, as shown, is pivotally supported to provide for vertical adjustment of the bearing-box 8 to effect desired adjustment of the drum or roller 3 toward and from the bed-plate 4. As shown, the bearing-box 11 is provided with trunions 12, which are fitted to suitable bearings in brackets on the frame-standard 2. Positive rotary movement is imparted to the shaft 7, and thus to the drum or roller 3, in the following manner: Formed on the bearing-box 11 are upwardly-extending arms 13, in the ends of which a shaft 14 is mounted. Secured to said shaft 14 so as to rotate therewith is a worm 15, which engages a worm-gear 16, secured to the shaft 7. Rotation is imparted to the worm-shaft 14 from any suitable source of power by means of a belt applied to a driving-pulley 17, secured to said shaft, or in other desired manner.

As shown, the bed-plate 4 forms the top of a hollow block 18, supported on the frame-bed 1 of the machine directly below the drum or roller 3, said bed-plate 4 being preferably slightly wider than said drum or roller 3. At the front end of the bed-plate 4, where the goods to be pressed is inserted between the roller and the bed-plate, the upper surface of the bed-plate extends forward substantially tangentially to the periphery of the roller, forming a gradually-converging entrance-throat. It has been found in practice that this construction operates to press the goods out flat without stretching or drawing the same in virtually the same manner as in hand-pressing. This avoids the plaiting or folding of the goods that would occur if the goods were fed directly into the pressing-space.

Revolvably mounted at the ends of the base-block 18, between the sides thereof, are rollers 19 and 20, adjusted to which is a belt 21, preferably made of duck or the like, the upper lap of which rests upon the bed-plate 4. Positive rotary movement is imparted to one or both of the rollers 19 and 20, preferably at the same surface speed as the drum or roller

3 is driven, thereby imparting movement to the belt or apron 21 in a direction to carry the goods or garment resting thereon rearwardly between the pressing-surfaces. As shown, the rear wheel 19 is secured to a shaft 22, revolubly mounted in the frame-standard 2, which is positively driven from the shaft 7 by means of spur-gears 23 and 24, secured to said shafts 7 and 22, respectively.

10 Supported within the drum or roller 3, preferably closely adjacent to the inner surface of the rim thereof and extending around the lower half thereof, is a gas-pipe 25, provided with perforations adapted to project jets of gas against the inner surface of the rim of said drum or roller 3. Gas is supplied to the pipe 25 from any suitable source of supply and is preferably delivered thereto through an air-mixer, (indicated at 26.)

20 Supported within the base-block 18, closely adjacent to the under surface of the bed-plate 4, is a gas-pipe 27, provided with perforations adapted to project jets of gas against the inner surface of said bed-plate, gas being supplied to said pipe 27 from any suitable source of power and being delivered thereto through an air-mixer, (indicated at 28.) It is obvious that the jets from the pipes 25 and 27 will operate to maintain the pressing-surfaces of the drum or roller 3 and bed-plate 4 at a high temperature, necessary to properly press the cloth or garment as it passes between the same.

A flange or rib 29 on the bed-plate 4 operates to guide the article to be pressed between the pressing devices and to coöperate with the rear face or flange 6 of the roller, up behind which face or flange this flange 29 extends to protect the goods from the flames issuing from the burner-pipe 25. The advantage in closing the front faces of the hollow base and the roller is that the goods will thereby be prevented from coming in contact with the flames, and the advantage in having the rear face of the hollow roller open is that the operator may readily observe the condition of the flames issuing from the burner, it being especially desirable to govern these flames properly in view of the fact that the periphery of the roller comes in direct contact with the cloth. Having the rear face of the roller open also permits the burner to be readily inserted and adjusted and removed. The advantage in locating the gear-wheel 23 just behind the trunnions 12 is that the necessary adjustment of the pressing-roller may be had without disengaging said gear from the gear 24.

A feature of importance lies in the peculiar means employed for feeding the fabric into the pressing-space between the roller and the belt-covered bed-plate. In Fig. 3 it will be observed that the forward portion of the bed-

plate and the periphery of wheel 20 are approximately in alinement, so that the belt passes from the wheel to the bed-plate without depression or elevation. This forward portion of the bed-plate and the adjacent periphery of the wheel 20 form a sort of feed surface or table, and this feed surface or table extends forward approximately in a horizontal line—that is, approximately tangentially to the periphery of the pressing-roller—whereby the hem or folded edge to be pressed may be passed straight into the pressing-space. This avoids bending or curving the hem to insert it into the pressing-space, so that all folding and buckling of the folded parts is avoided during the act of feeding the garment into the machine. The idea is to avoid the formation of folds or plaits in the hem portion of the garment until the garment is gripped between the pressing-surfaces, as after it is thus gripped folds or plaits cannot form.

I claim as my invention—

1. In a machine of the class described, the combination of a frame, a curved bed-plate having an upward-extending flange at its rear edge, a traveling belt running over said bed-plate, a pressing-roller mounted above said bed-plate and having its periphery closely adjacent to the upper lap of said belt and its edge extending down in front of and close to said upward-extending flange, and means for driving said pressing-roller.

2. In a pressing-machine, the combination of a drum or roller, a shaft to which said drum or roller is secured, bearing-blocks in which said shaft is revolubly mounted, comprising a vertically-adjustable and a pivoted bearing-block, means to rotate said shaft comprising a driving-shaft revolubly mounted in suitable bearings in the pivoted bearing-block of said drum-shaft, a worm secured thereto and a worm-gear on said drum-shaft which engages said worm, a bed-plate which partly surrounds said drum or roller, a belt or apron which runs in contact with said bed-plate, rollers to which said belt or apron is adjusted and driving connection between one of said rollers and the drum-shaft, substantially as described.

3. In a machine of the class described, the combination of a frame, a curved bed-plate, a pressing-roller working in close proximity to the face of said bed-plate, a shaft carrying said roller, a pivotally-supported bearing in which the rear end of said shaft is supported, means for vertically adjusting the forward end of said shaft, means supported on said pivotally-supported bearing for driving the shaft, a gear-wheel carried by said shaft in rear of its pivotal bearing, a shaft journaled in the frame below the aforesaid shaft and carrying a gear-wheel meshing with the afore-

said gear-wheel, a traveling belt running over the bed-plate, pulleys supporting this belt, one of these pulleys being driven by the lower one of the shafts, for the purposes set
5 forth.

In testimony that I claim the foregoing as my invention I affix my signature, in pres-

ence of two subscribing witnesses, this 20th day of October, A. D. 1903.

IVAR ERICKSON.

Witnesses:

K. A. COSTELLO,
M. P. FURR.