March 30, 1954 J. SILVERMAN 2,673,666

FABRIC FOLDING AND PRESSING MACHINE

Filed May 26, 1951 2 Sheets-Sheet 1

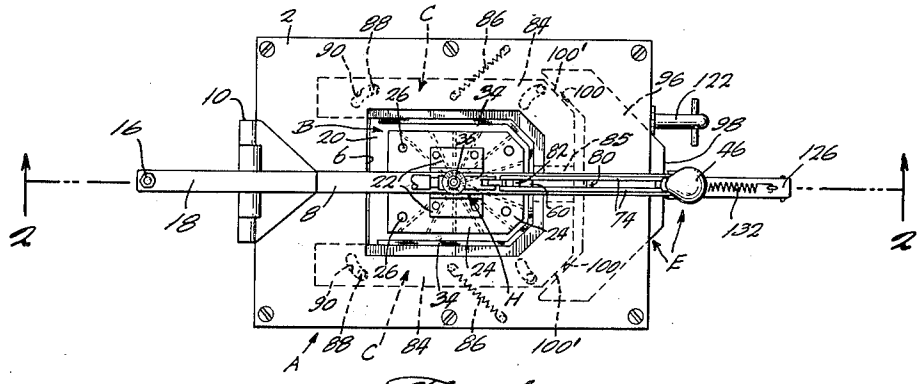


Fig. 1.

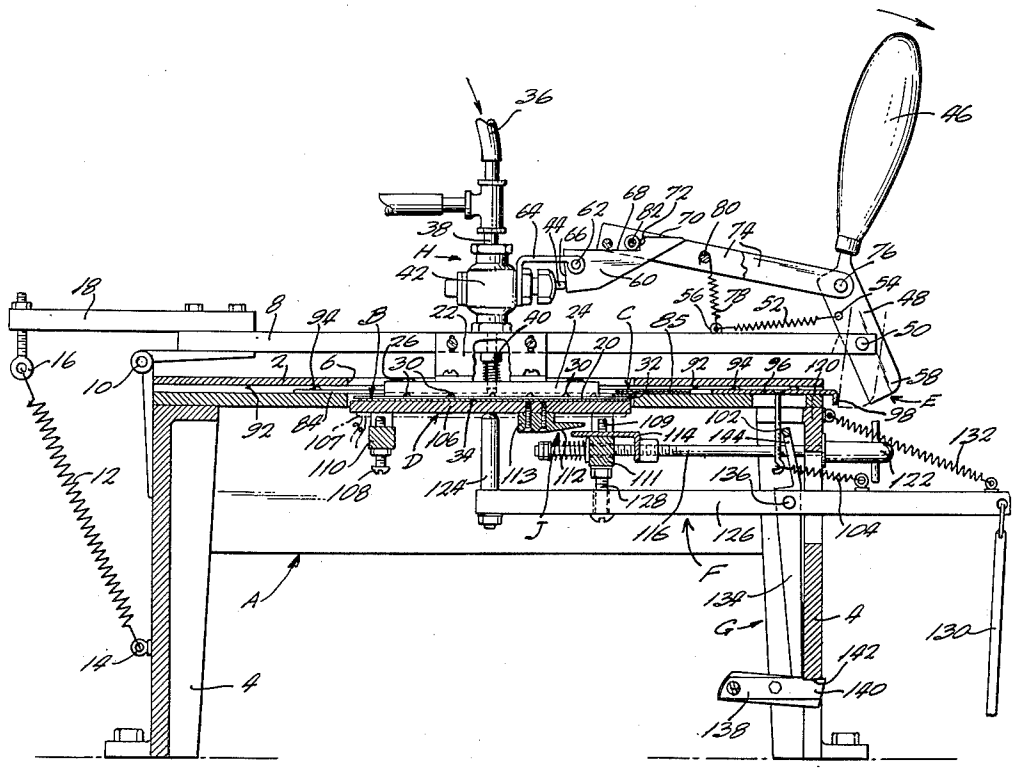


Fig. 2.

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2 Sheets-Sheet 2

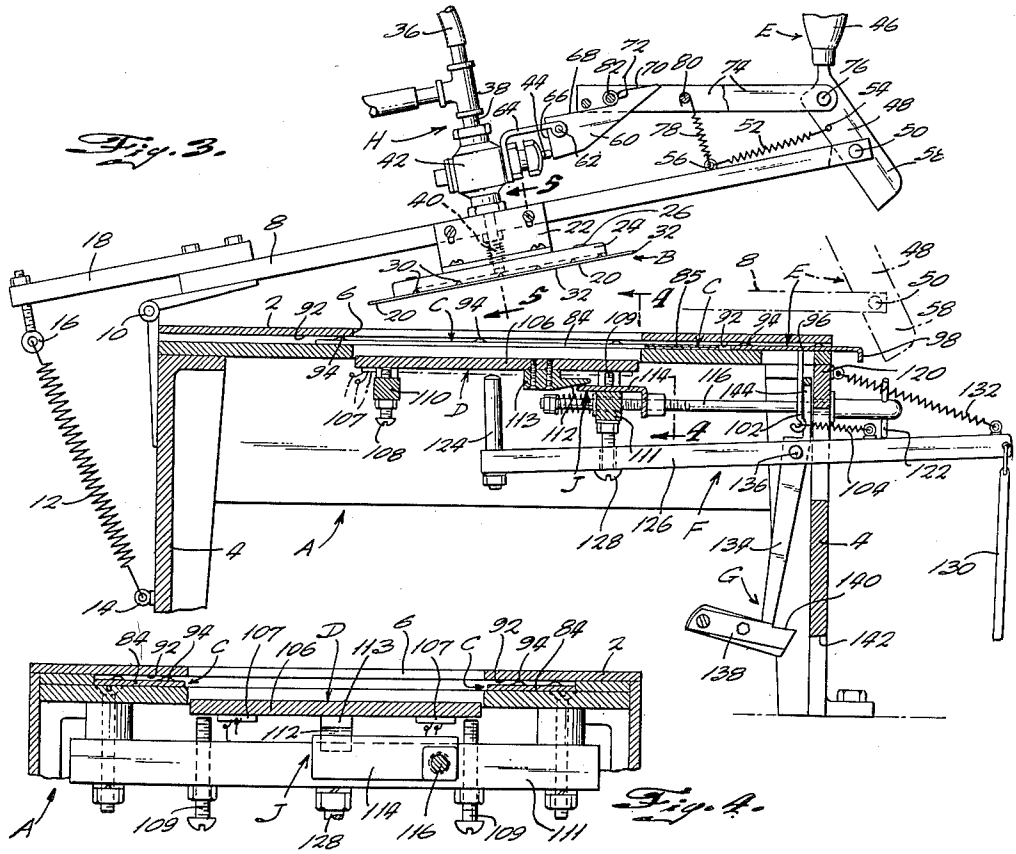


Fig. 3.

Fig. 4.

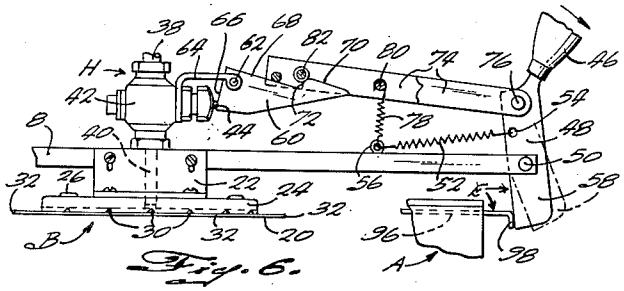


Fig. 6.

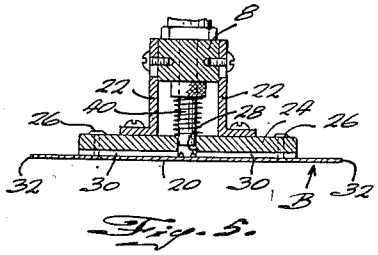


Fig. 5.

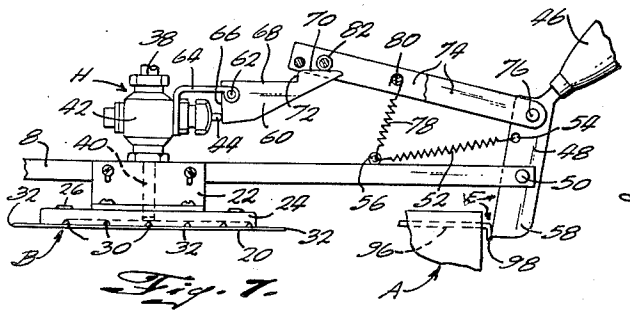


Fig. 7.

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2,673,666

UNITED STATES PATENT OFFICE

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FABRIC FOLDING AND PRESSING MACHINE

Jacob Silverman, Brooklyn, N. Y.

Application May 26, 1951, Serial No. 228,495

33 Claims. (Cl. 223—38)

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The present invention relates to improvements in a fabric folding and pressing machine which render the machine more effective and facilitates operation thereof. Viewed specifically, the instant invention constitutes an improvement over the machine disclosed in my Patent No. 2,317,817 of April 27, 1943, entitled "Fabric Edge-Folding and Pressing Device," but the broader aspects of my invention are applicable to machines differing widely therefrom.

Machines of the type under discussion are hand-operated and consequently the quantity and quality of their output depend to a significant extent on the skill, alertness and endurance of the operator. Since a high rate of productivity is an industrial necessity, the machines must be made as foolproof as possible, in order that an operator may work rapidly without sacrifice of accuracy. An important factor in this regard is the minimization of operator fatigue. A tired operator will work more slowly, and will make more mistakes, than one who is comparatively fresh.

One of the primary advantages of the machine of my Patent No. 2,317,817 was that it required the use of but one hand and one foot of the operator in order to perform the folding and pressing functions for which it was devised, thus leaving one hand of the operator free to ensure proper alignment and orientation of the fabric sheet to be formed and pressed, and leaving both hands of the operator free while the pressing operation was being carried out, in order, for example, to procure the next fabric sheet to be worked upon and preliminarily arrange it for the subsequent operation.

The machine of the instant invention performs all of the functions of the previously discussed machine, and in addition applies a properly directed and timed jet of steam to the fabric sheet in order to produce a better pressing effect. This is accomplished with no increase in manipulating functions insofar as the operator is concerned. Indeed, as a special feature of the instant machine which greatly reduces operator fatigue, the operator no longer even has to exert pressure with his foot while the pressing operation is being carried out. A foot impulse initiates the pressing operation and a similar foot impulse terminates it, the machine being so designed as to automatically maintain the pressing operation between successive impulses. Moreover, certain modifications of design have made the machine more flexible in operation, since it can now readily be adjusted for use with fabrics of different

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weights or thicknesses, or to control the strength with which the folding action is carried out on the fabric sheets.

The machine is simple, compact, and may be inexpensively manufactured and assembled. It is, however, positive in operation, easily adjusted, may be manipulated by operators with only a minimal amount of skill and training, is well suited for production-line operation, provides for maximum safety, and requires very little effort to operate, thus leaving the mind and aptitude of the operator available for the achieving of speed and a high degree of accuracy.

To the accomplishment of the above, and to such other objects as may hereinafter appear, the present invention relates to the construction of a fabric folding and pressing machine as defined in the appended claims and as described in this specification taken together with the accompanying drawings in which:

Fig. 1 is a top plan view of a machine incorporating the invention and showing the parts of the device in the position they assume while a pressing operation is being carried out;

Fig. 2 is a side cross-sectional view thereof taken along the line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 2 but showing the parts in stand-by position;

Fig. 4 is a front cross-sectional view taken along the line 4—4 of Fig. 3;

Fig. 5 is a detail cross-sectional view taken along the line 5—5 of Fig. 3; and

Figs. 6 and 7 are detail side elevational views, partly broken away, of that portion of the mechanism mounted on the pivoted arm which controls the application of steam, the parts being shown in Fig. 6 in the position they assume at the moment that steam is applied and Fig. 7 showing the parts in a different position, the steam flow being interrupted.

Broadly considered the machine of the present invention comprises a frame generally designated A on which a form B is mounted, the form being movable with respect to the frame to a position in which folding members C are movable over an edge or edges thereof in order to fold a fabric sheet therearound. A pressing member D is then adapted to press the fabric sheet against the form B while portions thereof are folded around said edge or edges of the form B, thus producing a permanent shaping and folding of the fabric sheet. A means E is provided for moving the folding members C, and a means F is provided for moving the pressing member D.

In order to obviate the necessity for the opera-

tor constantly to apply pressure to the pressing member D during the pressing operation, which may last an appreciable period of time, a means G is provided for locking the pressing member in operative pressing position and for releasing the pressing member from its operative pressing position when that is desired.

In addition, a steam feeding system generally designated H is provided which is so designed as to impart a directed jet of steam against those portions of the fabric sheet which are to be folded around the edge of the form B, preferably just before that folding operation is accomplished, in this way producing a more permanent and cleaner fold.

The pressing member D, when not in its operative position, assumes a normal inoperative position the optimum spacing of which with respect to the folding members C will vary depending upon the material which is to be folded and the tightness of the fold desired. An adjustable mounting means generally designated J is provided for the pressing member D, in order that its normal inoperative position may be readily and accurately controlled by the operator.

The frame A comprises a table 2 supported on legs 4 and having an opening 6 of a shape corresponding to that of the finished product. A form support, here shown as an arm 8, is pivotally mounted at 10 on the rear of the frame A, a spring 12 secured at 14 to the rear of the frame A and at 16 to a rearwardly extending finger 18 fastened to the arm 8, biasing the arm 8 so that it will normally assume an upwardly inclined position with respect to the table 2, as shown in Fig. 3.

The form B comprises a plate 20 having the size and shape of the desired folded and pressed object, the size of the plate 20 being somewhat smaller than that of the opening 6 in the table 2 so as to be receivable through that opening. The plate 20 is mounted on the arm 8 via adjustable brackets 22, and has a centrally located pad 24 attached to the top thereof, as by rivets 26, this pad having a central vertical aperture 28 leading to a plurality of radial passages 30 which extend outwardly to the edges of pad 24 and are oriented toward the front and side edges 32 of the plate 20, it being around the edges 32 that the fabric sheet 34 is to be folded.

The steam feeding system H is also mounted on the arm 8, that system including a steam inlet pipe 36 leading from any suitable steam supply source, and a conduit defined by tubes 38 and 40 leading from the inlet pipe 36 to the central orifice 28 in the pad 24. A normally closed valve 42 of any appropriate design is interposed between the tubes 38 and 40, a plunger 44 projecting out therefrom and being spring-urged to extended position, that position corresponding to the closing of the valve 42. If the plunger 44 be depressed, as in Fig. 6, the valve 42 will open and thus will permit steam to flow from the pipe 36 through the tubes 38 and 40, into the orifice 28 in the pad 24, and then out through the radial passages 30 in the pad 24, the outer extremities of the passages 30 thus constituting steam outlets which, it will be noted, are positioned close to and are oriented outwardly toward the front and side edges 32 of the form B around which the fabric sheet 34 is to be folded.

The form B is so mounted on the arm 8 that when the arm 8 is moved downwardly to a position substantially parallel to the table 2, the form B will pass through the opening 6 in the table 2. In order to move the arm 8 to that horizontal position against the action of the spring 12, and for other purposes hereinafter set forth, a handle 46 is attached to lever 48 pivotally mounted at 50 at the forward end of the arm 8, a spring 52 secured at 54 to the upper end of the lever 48 and at 56 to the arm 8 serving to bias the lever 48 and handle 46 to a position of counter-clockwise rotation as viewed in Figs. 2, 3, 6 and 7. A portion 58 of the lever 48 extends below the pivot point 50 for reasons explained below.

In order to actuate the steam valve 42, and thus automatically control and time the application of steam to the fabric sheet 34, a valve actuating linkage is mounted on the arm 8, that linkage being effective to open the valve 42 only for a short period of time, only while the handle 46 is pivoting in a clockwise direction as viewed in Figs. 2, 3, 6 and 7, and only when said handle 46 is at a predetermined point between its extreme degrees of travel. This linkage comprises a first element 60 pivotally mounted at 62 on bracket 64 and having face 66 which engages the tip of the plunger 44. The upper surface of the element 60 defines a cam surface having a lower lever 68 and an upper level 70 separated by an abrupt step 72. The element 60 normally assumes a substantially horizontal position by reason of its engagement with the plunger 44, that plunger being spring-urged outwardly as previously set forth.

The second element of the valve actuating linkage comprises a pair of arms 74 pivotally attached at 76 to the upper end of the lever 48 and biased downwardly by spring 78 fastened at 56 to the arm 8 and at 80 to the arms 74. The arms 74 extend rearwardly toward and encompass the first element 60 (see Fig. 1), and a cam follower 82 is mounted between the arms 74 so as to be urged into engagement with the cam surface on the top of the element 60 by reason of the biasing action of the spring 78. This spring is weak enough, in comparison with the force of the spring which urges the plunger 44 to extended position, so that the cam follower 82 will normally ride on top of the cam surface on the element 60 without depressing that element.

However, when the handle 46 is pivoted in a clockwise direction with respect to the arm 8, the cam follower 82, in riding over the lower level 68 of that cam surface, will come up against the abrupt step 72. In view of the abrupt nature of the step 72, any further motion of the handle 46 in a clockwise direction will cause the element 60 to become depressed and to pivot in a clockwise direction, thus pressing the plunger 44 inwardly, opening the valve 42, and permitting steam to escape through the passages 30. (See Fig. 6.)

If the handle 46 is further moved in a clockwise direction relative to the arm 8, the cam follower 82 will move over the abrupt face 72 and onto the upper level 70 of the cam surface. When this occurs, the predominance of the spring which presses the plunger 44 outwardly over the biasing spring 78 will again assert itself, the first element 60 will spring back to its horizontal position, the arms 74 will be lifted, and the valve 42 will close, thus shutting off the flow of steam. (See Fig. 7.) When the handle 46 is pivoted in a counter-clockwise direction, the cam follower 82 will ride over the upper level 70 of the cam surface, and then will drop down to the lower level 68 thereof, all without causing any motion of the

element 60 and hence without opening the valve 42.

The folding members C comprise a pair of plates 84 partially overlapping at 85 and having inner edges shaped to correspond to the periphery of the form B, these plates 84 being slidable beneath the table 2 between inoperative or withdrawn positions shown in Fig. 3 and operative or projected positions shown in Figs. 1 and 2. In the former position they permit the form B to pass down through the aperture 6 in the table 2 past their own inner edges, and in the latter position they overlap the edges 32 of the form B around which the fabric sheet 34 is to be folded, so as to achieve that folding action. Springs 86 tend to retain the plates 84 in their retracted or inoperative positions, these positions being fixed through the action of studs 88 mounted on the frame A and slidable within appropriately shaped slots 90 in the plates 84. The passageways 92 beneath the table 2 within which the plates 84 slide are preferably somewhat higher than the thickness of the plates 84, protrusions 94 being formed on the plates in order to provide for proper fit.

In order to move the folding members C to their operative position, an additional plate 96 is slidably mounted beneath the table 2, that plate having a down-turned portion 98 extending forwardly from the frame A and having inner inclined edges 100 adapted to engage correspondingly inclined edges 100' of the plates 84 when the plate 96 is moved inwardly. (See Fig. 1.) A finger 102 depends from the plate 96, and spring 104 is attached thereto so as to urge the plate 96 toward the front of the machine and away from the plates 84. When the arm 8 is moved to its horizontal position, so that the form B passes through the opening 6 in the table 2 and below the folding members C, the depending portion 58 of the lever 48 comes opposite the downwardly bent portion 98 of the plate 96 so that, when the handle 46 and the lever 48 are pivoted in a clockwise direction with respect to the arm 8, the portion 58 of the lever 48 will engage the downwardly bent portion 98 of the plate 96 and slide that plate inwardly until the edges 100 thereof engage the edges 100' of the plates 84. Further inward motion of the plate 96, as caused by continued clockwise rotation of the handle 46, will cause the surfaces 100 and 100' to slide upon one another, thus forcing the plates 84 inwardly over the form B to their operative folding positions and causing the upstanding edges of the fabric sheet 34 to bend about the edges 32 of the form B.

The pressing member D takes the form of a rigid plate 106, heated in any appropriate manner, as through the use of electrically heated elements 107 attached directly thereto, which is positioned below the opening 6 in the table 2 so that the form B is movable to a position thereabove, means F being provided to lift the pressing member D upwardly to its operative pressing position when a pressing operation is desired.

When the means F is not active on the pressing member D to lift it to operative pressing position, the plate 106 rests in its normal inoperative position spaced below the folding members C. The optimum spacing between pressing member D and folding members C, for a given thickness of form B, will depend upon the thickness and body of the material which constitutes the fabric sheet 34. If this spacing is too great a loose folding effect will result. If this spacing is too close the fabric might be damaged in the course of folding. Even within useable limits, variations in the amount of spacing will determine the force with which the folding members C will pull the fabric tautly around the edges 32 of the form B. In order to provide for adjustment of the normal position of the plate 106, screws 108 and 109 are mounted in cross bars 110 and 111 which are secured to the frame A below the table 2, the tips of these screws extending upwardly adjacent the edges of the plate 106 so as to normally support the plate in its inoperative position.

In order to permit ready adjustment of that normal position, the means J is provided, that means J comprising first element 113 having an inclined lower surface 112 secured to and depending from the plate 106. When the plate 106 is in its normal position this surface 112 is adapted to rest upon a second element 114 which is threadedly mounted on screw 116 the inner end of which passes through cross bar 111 and the outer end of which extends through the front wall 120 of the apparatus and terminates in a control knob 122. Rotation of the knob 122 causes rotation of the screw 116 and translation of the second element 114 toward and away from the first element 110, the inclined wedge type of engagement between the second element 114 and the surface 112 of the first element 113 causing the first element 113 to rise or fall as the second element 114 moves inwardly or outwardly, thus imparting corresponding motion to the pressing member D in its normal position. For most variations in fabric this type of adjustment of the normal position of the pressing member D is satisfactory, even though it may involve what is essentially a pivotal movement of the plate 106 about the rear screws 108, since little or no folding action occurs at the rear of the form. If this type of adjustment is not adequate, the screws 108 and 109 may also have their positions changed relative to the cross bars 110 and 111, but this is not as readilly accomplished.

The means F for moving the pressing member B to its operative pressing position comprises a finger 124 carried on lever 126 pivotally mounted on bolt 128 depending from the cross bar 111, the lever 126 extending out through the front wall 120 of the machine and being attached to link 130 which leads to a suitable foot treadle mechanism (not shown). A spring 132 tends to bias the lever 126 to its counter-clockwise position, thus permitting the pressing means D to assume its normal position, but pressure exerted by the operator upon the foot treadle overcomes the action of the spring 132, causes the lever 126 to pivot in a clockwise direction and lifts the plate 106 to its operative pressing position. It should be noted that in this position the pressing members C are wedged in their passageways 92 so that they will not move to retracted or inoperative position even when the plate 96 moves away from them so long as the pressing member D is in its operative position.

The means G for locking the pressing member D in its operative position and releasing it from that position comprises a pendulous arm 134 which is pivotally mounted at 136 on the lever 126, the lower extremity of the arm carrying a head 138 having a projecting tooth portion 140 which, when the lever 126 is pivoted in a clockwise direction so that the pressing member D is moved to operative position, engages in opening 142 in the front wall 120 of the machine. The

center of gravity of the head 138 is so related to the pivot point 136 that the arm 134 constantly tends to pivot in a counter-clockwise direction, the head 138 thus acting as a pivotal biasing means thereon, so that engagement between the tooth 140 and the opening 142 is facilitated. To initiate a pressing action the operator need merely step upon the foot treadle so as to bring the pressing member D to operative position, engagement between the tooth 140 and the opening 142 retaining the pressing member D in its operative position, thus permitting the operator to release pressure from the foot treadle.

The arm 134 has an upward extension 144 against which the finger 102 depending from the plate 96 presses when the plate 96 is moved outwardly under the action of the spring 104. This exerts a force on the arm 134 tending to pivot it in a counterclockwise direction, the spring 104 thus acting as a pivotal biasing means active in opposition to the biasing action of the head 138, the effect of the spring 104 being greater than the effect of the head 138. Hence when the plate 96 is not positively moved inwardly, as will be the case at all times except when the arm 8 is parallel to the table 2 and the handle 46 is pivoted in a clockwise direction, the spring 104 acting through the finger 102 will tend to move the arm 134 in a clockwise direction so as to release engagement between the tooth 140 and the opening 142. While the pressing member D is locked in operative position, the tooth 140 is held so strongly against the upper surface of the opening 142 that disengagement is impossible. (See Fig. 2.) However, when the operator next steps upon the treadle, thus pivoting the lever 126 to a somewhat greater degree in a clockwise direction, this force is released, the action of the spring 104 prevails and the arm 134 is pivoted in a clockwise direction. When the operator then releases the foot treadle the lever 126, aided by the spring 132, will pivot back in a counter-clockwise direction, the tooth 140 will be removed from the opening 142 and the pressing member will drop back to its normal inoperative position. (See Fig. 3.)

The sequence of steps in use of the machine is as follows: The operator, while the machine assumes the position shown in Fig. 3, will place the fabric sheet 34 to be folded over the opening 6 in the table 2. He will then grasp the handle 46 and, without moving the handle relative to the arm 8, move the arm 8 downwardly to its position parallel to the table 2, the form B moving through the opening 6 and beneath the folding members C, portions of the fabric sheet 34 which extend beyond the edges 32 of the form B thus being bent to a substantially upright position. The handle 46 will then be pivoted in a clockwise direction. This will have two effects. As in the machine of Patent No. 2,317,817, the portion 58 of the lever 48 will force the plate 96 inwardly and this in turn will move the folding members C to their operative position overlapping the edges 32 of the form B so as to fold the upstanding portions of the fabric sheet 34 therearound. At the same time, the cam follower 82 will be drawn over the cam surface on the element 60 and will open the valve 42 for a short period of time while the cam follower 82 is negotiating abrupt step 72. This will cause steam to be directed via the passages 30 at those portions of the fabric sheet 34 which are to be folded around the edges 32 of the form B, this preferably being accomplished before those fabric portions are actually folded down by the folding members C. For routine operations the operator need pay no attention to this operation, since the duration of the application of steam and the time in the folding cycle at which the steam is applied are all taken care of without his direct attention through appropriate design of the cam surface on the element 60. If, however, for some special reason it is desired to apply steam for a longer period of time than usual, a little practice will permit the operator to feel just when the cam follower 82 has started to negotiate the abrupt step 72, and if pivotal motion of the handle 46 is stopped at that point, the valve 42 will remain open, and steam will continue to be applied, for as long as is desired.

Once the folding members C have been moved to operative position and while they are held in that position by retaining the handle 46 in its operative position, pivoted clockwise all the way, the operator steps on the foot treadle and moves the pressing member D upwardly so at to press the fabric sheet 34 against the form B and against the overlapping portions of the folding members C. This upward movement of the pressing member D wedges the folding members C in operative position, in which position they will be retained without any additional force being applied. At the moment that the pressing member D first moves to operative position, the plate 96 must necessarily be moved inwardly in order that the folding member be operatively positioned. Hence the finger 102 depending therefrom does not engage the upwardly extending portion 144 of the arm 134, that arm is biased by its head 138 so as to pivot in a counter-clockwise direction, and consequently the tooth 140 engages in the opening 142. When pressure upon the foot treadle is released the tooth-opening engagement will lock the pressing member D in its operative position. The handle 46 is then released, the spring 52 causes it to pivot in a counter-clockwise direction, and the spring 104 causes the plate 96 to move outwardly. As the handle 46 pivots in a counter-clockwise direction the cam follower 82 moves from the top level 70 of the cam surface on the element 60 to the bottom level 68 thereof, but without opening the valve 42. The plate 96 moves outwardly until the pin 102 engages the the arm 144, but the force involved in the engagement of the tooth 140 with the upper surface of opening 144 does not permit any further motion of the plate 96.

To terminate the pressing operation the operator again steps upon the foot treadle, thus causing a slight further clockwise pivoting of the lever 126 so as to release the tooth 140 from firm engagement with the opening 142. When this is done the spring 104 pulls the plate 96 outwardly, engagement between the pin 102 and the arm 144 causes the arm 134 to pivot in a clockwise direction, the tooth 140 is moved out of the opening 142, and release of the foot treadle permits the lever 126 to pivot in a counterclockwise direction and the pressing member D to move to its normal inoperative position. When this occurs the folding members C, no longer wedged in the passageways 92, will spring back to their inoperative positions, and the spring 12 will lift the arm 8 and the form B to their upper position shown in Fig. 3, at which time the folded and pressed fabric sheet 34 can be removed from the form B.

Throughout the operation of the machine only one hand of the operator, the one which grasps the handle 46, is required for manipulation, the other hand being left free for adjustment and

orientation of the fabric sheet or for any other purpose. While the pressing operation is taking place, that being the only single operation which involves any appreciable period of time, the operator is entirely free, since he does not even have to maintain pressure on the foot treadle. Despite this extreme simplicity of operation and the lack of any requirement of sustained effort or exertion on the part of the operator, an additional function has been added over those produced by the machine of Patent No. 2,317,817, to wit, the timed application of a jet of steam at the very point desired, at the very time most effective, and for a period of time best adapted to produce optimum results.

While but a single embodiment of the present invention has been here disclosed, it will be apparent that the details thereof may be varied widely within the spirit of the invention as defined in the following claims.

I claim:

1. In a folding and pressing machine having a frame, a form on said frame around an edge of which a sheet is to be folded, a folding member mounted on said frame so as to be movable between an operative position overlapping said form, in which position said sheet is folded around said form edge thereby, and an inoperative position beyond said form, a pressing member mounted on said frame so as to be movable between an operative position in which said sheet is pressed against said form so as to take the shape thereof and an inoperative position in which no substantial pressure is exerted thereagainst, and means for moving said pressing member and said folding member; the improvement which comprises a lock element operatively connected to said pressing member, first biasing means active on said lock element so as to urge it to engaging position, means on said frame cooperable with said lock element when it is in engaging position and when said pressing member is in operative position so as to retain said pressing member in said position, a releasing element engageable with said lock element, second biasing means stronger than said first biasing means operatively connected to said releasing element so as to urge it in such a direction as to tend to move said lock element engaged thereby out of engaging position, and an operative connection between said releasing element and said means for moving said folding member, said releasing element being positioned thereby against the action of said second biasing means in an inoperative position with respect to said lock element when said moving means is positioned so as to move said folding member to operative position.

2. The folding and pressing machine of claim 1, in which said lock element comprises a pivotally mounted pendulum having a head the weight of which biases said element to move toward engaging position, and in which said means for moving said folding member comprises a plate slidable in said frame above said lock element, said releasing member being connected to, depending from, and movable with said plate and engageable with said pendulum.

3. The folding and pressing machine of claim 1, in which said lock element comprises a pendulum pivotally mounted on said means for moving said pressing member and having a head the weight of which biases said element to move toward engaging position, and in which said means for moving said folding member comprises a plate slidable in said frame above said lock element, said releasing member being connected to, depending from, and movable with said plate and engageable with said pendulum.

4. The folding and pressing machine of claim 1, in which said means for moving said folding member comprises a plate slidable in said frame, said releasing member being connected to and movable with said plate.

5. In a folding and pressing machine having a frame, a form on said frame around an edge of which a sheet is to be folded, a folding member mounted on said frame so as to be movable between an operative position overlapping said form, in which position said sheet is folded around said form edge thereby, and an inoperative position beyond said form, a pressing member mounted on said frame so as to be movable between an operative position in which said sheet is pressed against said form so as to take the shape thereof and an inoperative position in which no substantial pressure is exerted thereagainst, and means for moving said pressing member and said folding member; the improvement which comprises a lock element operatively connected to said pressing member, first biasing means active on said lock element so as to urge it to engaging position, means on said frame cooperable with said lock element when it is in engaging position and when said pressing member is in operative position so as to retain said pressing member in said position, a releasing element engageable with said lock element, second biasing means stronger than said first biasing means operatively connected to said means for moving said folding member so as to urge said moving means to a biased position corresponding to the inoperative position of said folding member, and an operative connection between said moving means and said releasing element, said releasing element being positioned in engagement with said lock element and being urged in a direction to move said lock element out of engaging position when said folding member moving means is in its biased position.

6. In a fabric folding machine including a frame, a form on said frame around an edge of which a sheet is to be folded, a folding member mounted on said frame so as to be movable between an operative position overlapping said form, in which position said sheet is folded around said form edge thereby, and an inoperative position beyond said form, and a handle operatively connected to said folding member for moving the latter, said handle being movable between operative and inoperative positions corresponding respectively to the operative and inoperative positions of said folding member; the improvement which comprises a steam feeding system on said frame and including a valve, said system having an outlet adjacent said form, and a valve actuating linkage operatively connected between said valve and said handle, said linkage assuming one position in which said valve is closed when said handle is in operative or inoperative position or is being moved from the former to the latter, and assuming another position in which said valve is opened when said handle is in a position intermediate between its operative and inoperative positions and is being moved from the latter to the former.

7. A fabric folding machine comprising a frame, a form mounted thereon around an edge of which a sheet is to be folded, a steam feeding system on said frame having an outlet adjacent

said form, a normally closed valve in said steam feeding system, a handle articulately mounted on said frame so as to be movable between first and second positions, and a valve actuating linkage operatively connected between said valve and said handle, said linkage including parts operatively engageable for a short period of time only when said handle is in a position intermediate between its first and second positions and is being moved from the latter to the former, said operative interengagement, so long as it lasts, being effective to open said valve.

8. The fabric folding machine of claim 7, in which said form and said handle are mounted on an arm which is articulately mounted on said frame so as to be movable between positions in which said form is adjacent to or remote from said frame, said handle being adapted to permit movement of said arm when grasped and moved relative to said frame and independently of its movement relative to said arm.

9. The fabric folding machine of claim 8, in which a folding member is mounted on said frame so as to be movable between an operative position in which said sheet is folded thereby around said form edge and an inoperative position, and an operative connection between said handle and said folding member, said handle positioning said folding member in its operative position when said handle is in its first position, said folding member being positioned in its inoperative position when said handle is in its second position.

10. The fabric folding machine of claim 7, in which a folding member is mounted on said frame so as to be movable between an operative position in which said sheet is folded thereby around said form edge and an inoperative position, and an operative connection between said handle and said folding member, said handle positioning said folding member in its operative position when said handle is in its first position, said folding member being positioned in its inoperative position when said handle is in its second position.

11. In the fabric folding machine of claim 10, a pressing member mounted on said frame so as to be movable between an operative position in which said sheet is pressed against said frame so as to take the shape thereof and an inoperative position, means for moving said pressing member, a lock element operatively connected to said pressing member, first biasing means active on said lock element so as to urge it to engaging position, means on said frame cooperable with said lock element when it is in engaging position and when said pressing member is in operative position so as to retain said pressing member in said position, a releasing element engageable with said lock element, means for moving said folding member mounted on said frame and operatively connected between said handle and said folding member, second biasing means stronger than said first biasing means operatively connected to said folding member moving means so as to urge it to a biased position corresponding to the inoperative position of said folding member, and an operative connection between said folding member moving means and said releasing element, said releasing element being positioned in engagement with said lock element and being urged in a direction to move said lock element out of engaging position when said folding member moving means is in its biased position.

12. The fabric folding machine of claim 7, in which said valve actuating linkage comprises a first movable element operatively connected to said valve, said element having a cam surface with an abrupt face, and a second movable element operatively connected to said handle and having a cam follower engageable with said cam surface, said cam follower being moved against said abrupt face on said cam surface as said handle is moved from its second to its first position, thereby moving said first element to a position in which said valve is opened.

13. The fabric folding machine of claim 7, in which said valve actuating linkage comprises a first movable element operatively connected to said valve, said element having a cam surface defined by two different levels separated by an abrupt step, and a second movable element operatively connected to said handle, extending toward said first element, and having a cam follower, said second element being biased toward said first element so that said cam follower engages said cam surface and moves thereover as said handle is moved between its first and second positions, said first element assuming a position in which said valve is closed except when said cam follower moves against and over said abrupt step from the lower to the upper level, said cam follower being thus moved as said handle is moved from its second to its first position.

14. A fabric folding machine comprising a frame, a form support carrying a form around an edge of which a sheet is to be folded, said form support being mounted on said frame so as to be movable between a first position in which said form is remote from said frame and a second position in which said form is adjacent said frame, a folding member mounted on said frame so as to be movable between an operative position overlapping said form when said form is adjacent said table, in which position said sheet is folded around said form edge thereby, and an inoperative position, a steam feeding system mounted on said form support interiorly of the outline of said form and having an outlet oriented outwardly with respect to said form toward said form edge, a normally closed valve in said steam feeding system and on said form support, a handle articulately mounted on said form support so as to be movable between first and second positions relative to said form support, an operative connection between said handle and said folding member, said folding member being moved to operative position when said handle is in its first position and to inoperative position when said handle is in its second position, and a valve actuating linkage operatively connected between said valve and said handle, said linkage assuming one position in which said valve is closed when said handle is in its first or second positions or is being moved from the former to the latter, and another position in which said valve is opened when said handle is in a position intermediate between its first and second positions and is being moved from the latter to the former.

15. The fabric folding machine of claim 14, in which said valve actuating linkage comprises a first element articulately mounted on said arm and operatively connected to said valve, said element having a cam surface with an abrupt face, and a second element operatively connected to said handle and having a cam follower engageable with said cam surface, said cam follower being moved against said abrupt face of said

cam surface as said handle is moved from its second to its first position, thereby moving said first element to a position in which said valve is opened.

16. The fabric folding machine of claim 14, in which said valve actuating linkage comprises a first element articulately mounted on said arm and operatively connected to said valve, said element having a cam surface defined by two different levels separated by an abrupt step, and a second element articulately connected to said handle, extending toward said first element, and having a cam follower, said second element being biased toward said first element so that said cam follower engages said cam surface and moves thereover as said handle is moved relative toward said arm, said first element assuming a position in which said valve is closed except when said cam follower moves against and over said abrupt step from the lower to the upper level, said cam follower being thus moved as said handle is moved from its second to its first position.

17. In a folding and pressing machine having a frame, a form around an edge of which a sheet is to be folded, a pressing member mounted on said frame so as to assume a normal position on one side of said form, and means for moving said pressing member away from its normal position into an operative position nearer said form so as to press said sheet thereagainst; the improvement in the mounting of said pressing member in its normal position which comprises a first element depending from said pressing member, a second element articulately mounted on said frame and engaged by said first element when said pressing member is in normal position, said engagement being of the inclined wedge type, whereby movement of said second element relative to said first element will cause said first element to move toward or away from said form and impart corresponding motion to said pressing member, and a control member at the front of said frame and operatively connected to said second element for moving the latter manipulation of said control member thus controlling the normal position of said pressing member relative to said form.

18. In a folding and pressing machine having a frame, a form around an edge of which a sheet is to be folded, a pressing member mounted on said frame so as to assume a normal position in which it is adjacent and below said form, and means for moving said pressing member upwardly from its normal position into an operative position nearer said form so as to press said sheet thereagainst; the improvement which comprises a first element depending from said pressing member, a second element mounted on said frame so as to be movable in a substantially horizontal direction and engaged by said first element, said engagement being of the inclined wedge type, whereby movement of said second element relative to said first element will cause said first element to rise or drop and impart corresponding motion to said pressing member, and a control member at the front of said frame and operatively connected to said second element for moving the latter, manipulation of said control member thus controlling the normal position of said pressing member relative to said form.

19. A fabric folding machine comprising a frame, a form mounted thereon around an edge of which a sheet is to be folded, a member on said form and having a passage therethrough terminating in an outlet adjacent and inwardly spaced with respect to said form edge, a steam feeding system on said frame including a valve and means communicating with said form passage, means for controlling said valve, a folding member mounted on said frame so as to be movable between an operative position overlapping said form, in which position said sheet is folded around said form edge thereby, and an inoperative position beyond said form, a handle operatively connected to said folding member for moving the latter, said handle being movable between operative and inoperative positions corresponding respectively to the operative and inoperative positions of said folding member, and an operative connection between said handle and said valve controlling means for automatically coordinating the escape of steam from said outlet with the relative positions of said folding member.

20. In a fabric folding machine including a frame, a form on said frame around an edge of which a sheet is to be folded, a folding member mounted on said frame so as to be movable between an operative position overlapping said form, in which position said sheet is folded around said form edge thereby, and an inoperative position beyond said form, an a handle operatively connected to said folding member for moving the latter, said handle being movable between operative and inoperative positions corresponding respectively to the operative and inoperative positions of said folding member; the improvement which comprises a steam feeding system on said frame and including a valve, said system having an outlet adjacent said form, and a valve actuating linkage operatively connected between said valve and said handle for automatically coordinating the escape of steam from said outlet with the relative positions of said folding member.

21. The fabric folding machine of claim 19, in which said form, said member, said handle and said valve are all mounted on said frame for simultaneous movement toward and away from said folding member.

22. The fabric folding machine of claim 19, in which said form, said member, said handle and said valve are all mounted on said frame for simultaneous movement toward and away from said folding member, and in which biasing means are provided active on said simultaneously movable elements for urging them away from said folding member.

23. The fabric folding machine of claim 20, in which said form, said steam valve and outlet, and said handle are all mounted on said frame for simultaneous movement toward and away from said folding member.

24. The fabric folding machine of claim 23, in which biasing means are provided active on said simultaneously moving elements for urging them away from said folding member.

25. In a fabric folding machine including a frame, a form on said frame around an edge of which a sheet is to be folded, a folding member mounted on said frame so as to be movable between an operative position overlapping said form, in which position said sheet is folded around said form edge thereby, and an inoperative position beyond said form, and a handle operatively connected to said folding member for moving the latter, said handle being movable between operative and inoperative positions corresponding respectively to the operative and inoperative positions of said folding member, the

improvement which comprises a steam feeding system on said frame and including a valve, said system having an outlet adjacent said form, and a valve actuating linkage operatively connected between said valve and said handle and including two interengaging parts, one part operatively connected to said valve and urged to a direction such as to place said valve in one condition, the other part operatively connected to said handle and urged against said one part so as to tend to urge said one part in the opposite direction and place said valve in another condition, the force of said other part being insufficient to thus move said one part, said one part having a stepped cam surface and said other part sliding therealong and over the step in said cam surface when said handle is moved, movement of said other part over said step in one direction camming said one part in said opposite direction so as to effectively place said valve in said other condition.

26. The fabric folding machine of claim 25, in which said valve is closed when in one condition and open when in said other condition.

27. A fabric folding machine comprising a frame, a form mounted thereon around an edge of which a sheet is to be folded, a steam feeding system on said frame having an outlet adjacent said form, a valve in said steam feeding system, a handle articulately mounted on said frame so as to be movable between first and second positions, and a valve actuating linkage operatively connected between said valve and said handle and including two interengaging parts, one part operatively connected to said valve and urged to a direction such as to place said valve in one condition, the other part operatively connected to said handle and urged against said one part so as to tend to urge said one part in the opposite direction and place said valve in another condition, the force of said other part being insufficient to thus move said one part, said one part having a stepped cam surface and said other part sliding therealong and over the step in said cam surface when said handle is moved, movement of said other part over said step in one direction, corresponding to a position of said handle intermediate between its first and second positions and while said handle is being moved in one direction therebetween, camming said one part in said opposite direction so as to effectively place said valve in said other condition, said valve being closed when in said one condition and open when in said other condition.

28. The fabric folding machine of claim 27, in which said form and said handle are mounted on an arm which is articulately mounted on said frame so as to be movable between positions in which said form is adjacent to or remote from said frame, said handle being adapted to cause movement of said arm when grasped and moved relative to said frame and independently of its movement relative to said arm.

29. The fabric folding machine of claim 28, in which a folding mmeber is mounted on said frame so as to be movable between an operative position in which said sheet is folded thereby around said form edge and an inoperative position, and an operative connection between said handle and said folding member, said handle positioning said folding member in its operative position when said handle is in its first position, said folding member being positioned in its inoperative position when said handle is in its second position.

30. The fabric folding machine of claim 27, in which a folding member is mounted on said frame so as to be movable between an operative position in which said sheet is folded thereby around said form edge and an inoperative position, and an operative connection between said handle and said folding member, said handle positioning said folding member in its operative position when said handle is in its first position, said folding member being positioned in its inoperative position when said handle is in its second position.

31. In the fabric folding machine of claim 30, a pressing member mounted on said frame so as to be movable between an operative position in which said sheet is pressed against said form so as to take the shape thereof and an inoperative position, means for moving said pressing member, a lock element operatively connected to said pressing member, first biasing means active on said lock element so as to urge it to engaging position, means on said frame cooperable with said lock element when it is in engaging position and when said pressing member is in operative position so as to retain said pressing member in said position, a releasing element engageable with said lock element, means for moving said folding member mounted on said frame and operatively connected between said handle and said folding member, second biasing means stronger than said first biasing means operatively connected to said folding member moving means so as to urge it to a biased position corresponding to the inoperative position of said folding member, and an operative connection between said folding member moving means and said releasing element, said releasing element being positioned in engagement with said lock element and being urged in a direction to move said lock element out of engaging position when said folding member moving means is in its biased position.

32. The fabric folding machine of claim 27, in which said one part of said valve actuating linkage has a cam surface with an abrupt face, and said other part of said valve actuating linkage has a cam follower engageable with said cam surface, said cam follower being moved against said abrupt face on said cam surface as said handle is moved from its second to its first position, thereby moving said first element to a position in which said valve is opened.

33. The fabric folding machine of claim 27, in which said one part of said valve actuating linkage has a cam surface defined by two different levels separated by an abrupt step, and said other part of said valve actuating linkage has a cam follower, said other part being biased toward said one part so that said cam follower engages said cam surface and moves thereover as said handle is moved between its first and second positions, said one part assuming a position in which said valve is closed except when said cam follower moves against and over said abrupt step from the lower to the upper level, said cam follower being thus moved as said handle is moved from its second to its first position.

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