W. E. SWARTZ.

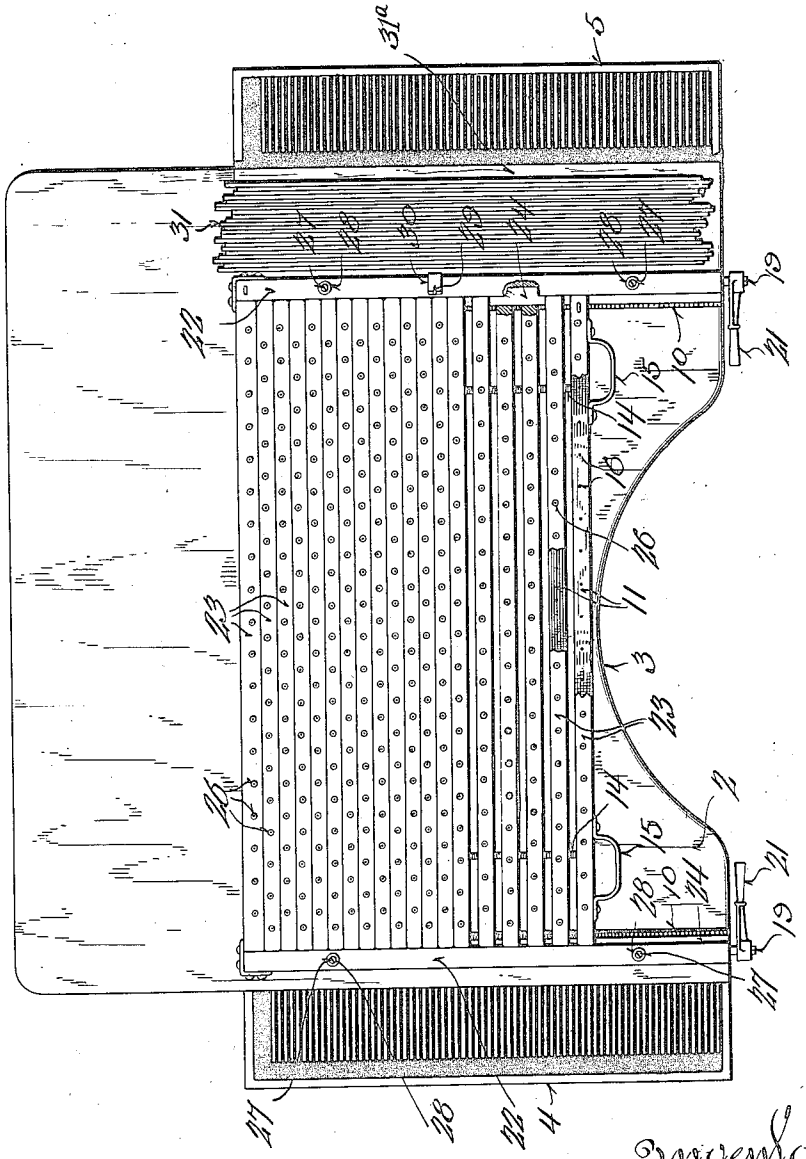
MACHINE FOR MAKING ORNAMENTAL LININGS FOR RECEPTACLES.

APPLICATION FILED JUNE 25, 1915.

1,209,904.

Patented Dec. 26, 1916.

3 SHEETS—SHEET 1.



Witness:

Inventor:

Warren E. Swartz

by Wyatt & Young

Attorneys.

W. E. SWARTZ.

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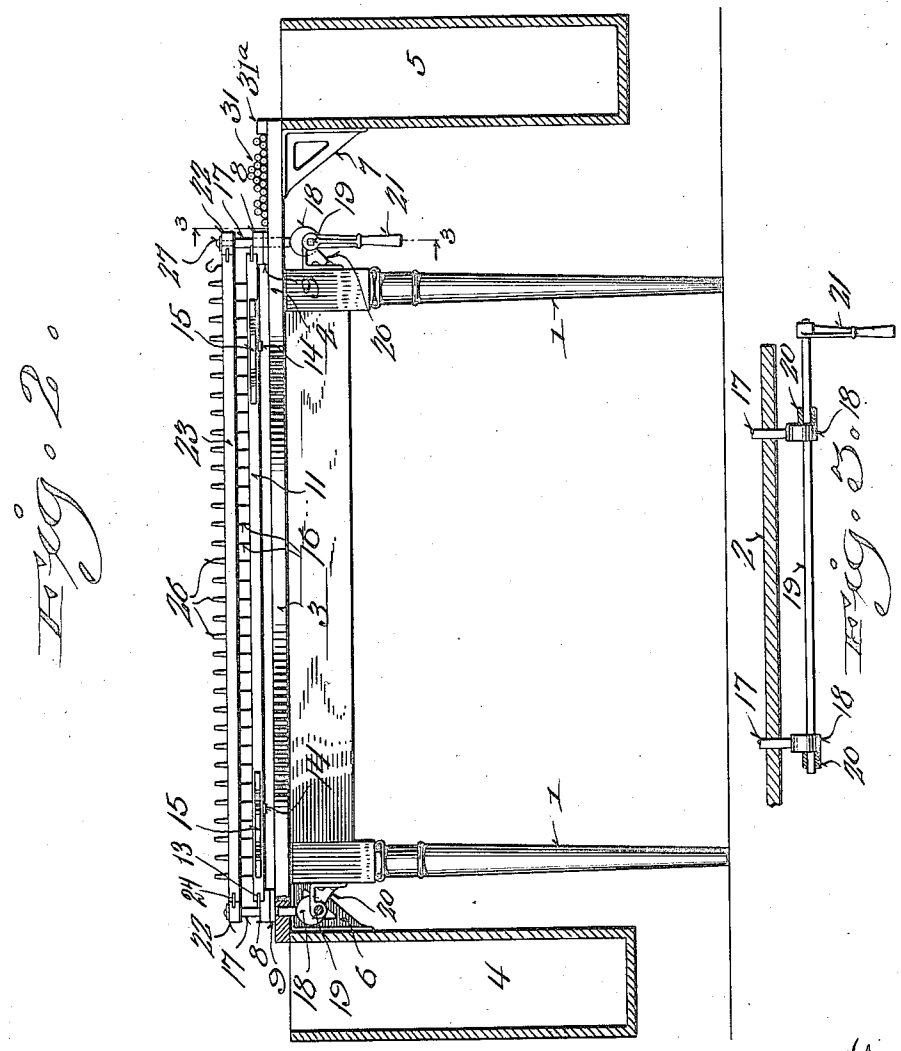


Fig. 2.

Fig. 3.

Witness

Inventor

Warren E. Swartz

by Popham & Young

Attorneys.

W. E. SWARTZ.

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Fig. 5.

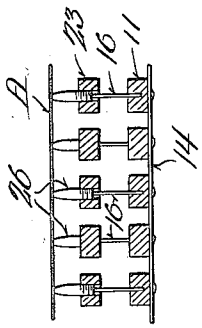


Fig. 7.

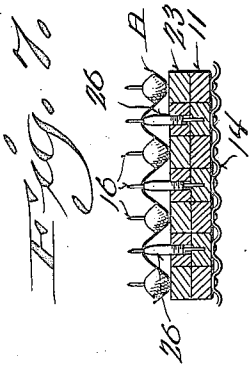


Fig. 9.

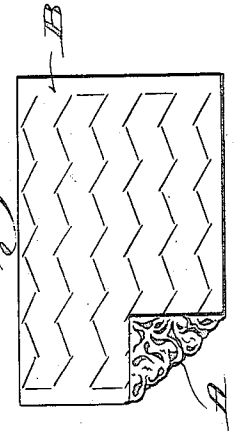


Fig. 4.

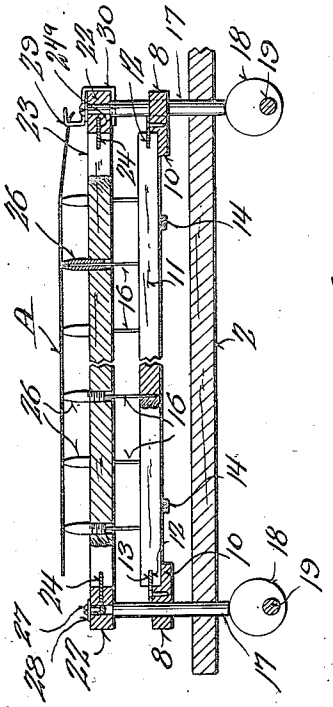


Fig. 6.

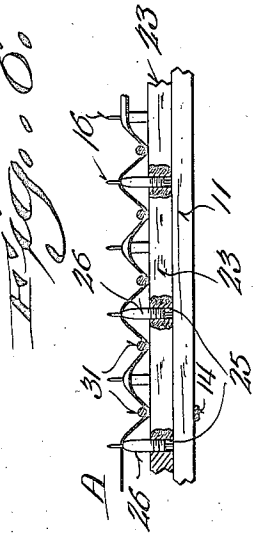
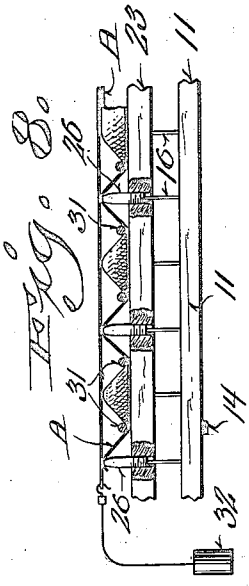


Fig. 8.



Witnesses:

Inventor:
Warren E. Swartz
By
Attorneys.

UNITED STATES PATENT OFFICE.

WARREN E. SWARTZ, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO MILWAUKEE CASKET COMPANY, OF MILWAUKEE, WISCONSIN.

MACHINE FOR MAKING ORNAMENTAL LININGS FOR RECEPTACLES.

1,209,904. Specification of Letters Patent. Patented Dec. 26, 1916.

Application filed June 25, 1915. Serial No. 36,208.

To all whom it may concern:

Be it known that I, WARREN E. SWARTZ, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Machines for Making Ornamental Linings for Receptacles; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to the subject of linings for receptacles, such as caskets and the like, wherein the lining is of an ornamental type, and the main object of the invention is to provide a machine in which ornamental linings may be quickly and economically manufactured with a minimum of labor, and in which means are provided whereby the ornamentation of the lining may be varied.

A simple and practical form of the invention is shown in the accompanying drawings wherein—

Figure 1 is a top plan view of the improved lining machine; Fig. 2 is a front elevation of the improved machine, showing portions thereof broken away to more clearly disclose the structure; Fig. 3 is a detailed perspective view taken on a line 3—3 of Fig. 2; Figs. 4, 5, 6, 7 and 8 are detail fragmentary sectional views showing various steps in the operation of the machine; Fig. 9 is a fragmentary detailed view of the finished product of the machine.

The improved lining machine comprises in its general organization a work table or bench preferably provided with the end legs 1, flat top 2, said top being provided with the usual cut away front portion 3. At each end of the table work receptacles 4 and 5 respectively are provided, and such may be conveniently supported by the brackets 6 and 7 respectively. The mechanism that performs the function of producing the ornamental linings comprises primarily a stationary lower frame and an upper frame that is vertically movable relative to the lower frame.

A simple and thoroughly practical embodiment of the invention will now be described.

The lower frame includes the end bars 8 that extend transversely across the top of the table and are seated on blocks 9 to retain said bars in spaced relation to the table top. The bars 8 have their inner longitudinal surfaces provided with ledges 10 that form seats upon which the ends of slots 11 are slidable. Preferably the ends of the slats are provided with slots 12 which are engaged by guide-strips 13 of metal or other suitable material, said strips being suitably secured to the bars 8, and subserving the function of retaining the slats to the ledges 10 yet permitting said slats to have sliding movement on said ledges. The slats 11 are connected by the flexible strips 14 which may be of rawhide or of other suitable material, so that a limited relative movement of the slats is permitted. Such relative movement of the slats is facilitated by providing hand grips 15 on a front slat within reach of the operator, as more clearly shown in Fig. 2 of the accompanying drawings. Each slat is provided with a longitudinal row of upstanding pins 16, the pins being disposed in regularly spaced relation and the pins of one slat being staggered relative to the pins of the adjacent slat.

Two or more adjusting rods 17 are vertically slidable through each end of the table top and through the bars 8 of the stationary frame, the rods being actuated by the cams 18 mounted on the shafts 19 journaled in brackets 20 beneath the table top, each shaft 19 being equipped with a manipulating handle 21 disposed within easy reach of the operator, as more clearly shown in Fig. 1 of the accompanying drawings. The upper vertically movable frame, before referred to, may be, so far as general structure is concerned, a duplicate of the lower frame, and includes the end bars 22 that rest on and are firmly connected to but readily separable from the adjusting rods 17. Slats 23 connect the bars 22 and are slidably attached thereto by the ties 24 that are carried by the slats and slidably engage the slots 24^a in the bars 22. Each slat is provided with regularly spaced openings 25 corresponding in number and location with the pins 16 of the slats of the lower frame, and such openings 25 serve as sockets for the reception of the upstanding pin-guiding sleeves 26. The sleeves 26 project well above the slats 23, and to facilitate seating or removably positioning such sleeves, the openings and sleeves may be threaded.

Fig. 4 of the accompanying drawings shows a simple manner of connecting the

end bars 22 to the adjusting rods 17 that has been found efficient. Such connection consists in reducing the ends of the rods 17 that extend through the bars 22 and providing such reduced ends with threaded sockets for the reception of the screws 27 equipped with the washers 28.

The bar 22 at the right hand end of the upper frame is equipped with one or more work-holding hooks 29, such hooks being carried by the embracing clip 30, that is more clearly shown in Fig. 4 of the drawings.

The operation of the machine in producing ornamental linings is shown in Figs. 4, 5, 6, 7 and 8 of the drawings, and by referring to said figures in connection with Figs. 1 and 2, the operation of such will be readily apparent.

The material A to be ornamented is usually contained in receptacle 4 and one end of such material is withdrawn from the said receptacle and extended over the sleeves 26 of slats 23 and fastened to the hook 29, this step in the operation being performed while the upper frame is elevated, as shown in Fig. 4 of the drawings. Weights 31 are then placed on the material, such weights being preferably in the form of metal rods, and which extend transversely across the material between the sleeves 26. The cam-shaft is then manipulated to permit the upper frame to drop onto the lower frame, as shown in Figs. 6 and 7 of the drawings, which imparts to the material the alternate raised and depressed portions clearly shown in said figures. The sleeves 26 and weights 31 hold the material in such shape, that the pins 16 project through the material, it being understood that the slatted portion is at this time extended. After the completion of this portion of the operation the slatted portion is contracted, which puckers the material, or, as is known in the art, imparts a crushed effect thereto, the cam-shaft is again manipulated to elevate the upper frame, as shown in Fig. 8, such movement withdrawing the pins 16 from the material A. A backing strip B is then extended across the material A, as shown in Fig. 8, such backing resting on the raised portions only of the material A. A weight 32, or its equivalent, is then hooked or otherwise attached to one end of the backing B to maintain a tension on such backing that will retain it in a flat condition, after which the operator stitches the material A and the backing B at the point which they contact. The weights are then withdrawn from between the material A and its backing B, after which the meeting ends of the material A and backing B are sewed together.

It will be observed by reference to Fig. 1 of the drawings, that the upper and lower frames are so disposed that ample space is left between one of their ends and the adjacent end of the table to form a compartment for the weights 31. An end bar 31a at the outer end of the table top forms the outer wall for such compartment.

An important feature of the invention is that by flexibly connecting the slats of the lower frame and slidably connecting all of the slats of each frame to the end bars, the slats of each frame are capable of being relatively moved. Such relative movement is governed by the slats of the lower frame, as their pins 16 are at all times in engagement with the sleeves 26. Hence a sliding movement of any or all of the lower slats correspondingly actuate the upper slats. This arrangement permits variations in the design of the finished product of the machine, inasmuch as the relative adjustments of the slats obviously varies the raised and depressed portions of the finished product.

I claim:

1. A machine of the character described comprising a support, a stationary lower frame mounted thereon and provided with transversely movable slats having flexible connections, an upper frame having complementary slats transversely movable thereon, sleeves carried by the slats, pins carried by the lower slats engageable with the sleeves to cause the slats of the upper and lower frames to move in unison, and means for vertically moving the upper frame relatively to the lower frame.

2. A machine of the character described comprising a stationary and a vertically movable frame, each frame including transversely movable slats, means for flexibly connecting the slats of one of the frames, guide sleeves carried by the slats of one of said frames, pins carried by the slats of the other frame and telescoping with said sleeves, and means for raising and lowering the movable frame relative to the stationary frame.

3. A machine of the character described comprising a support, a stationary frame mounted thereon, said frame including transversely movable slats provided with pins, means for connecting said slats to permit the slats to have a limited relative movement, an upper movable frame including transversely movable slats provided with means that are engaged by the pins of the lower slats to cause the upper and lower slats to have transverse movement in unison, and means carried by the support for causing the upper frame to have vertical movement relative to the lower frame.

4. A machine of the character described comprising a support having a stationary frame seated thereon, an upper frame movable vertically relative to the lower frame, the frames being provided with transversely movable pin carrier slats and sleeve carrier

slats, respectively, means for connecting the pin carrier slats to permit them to have a limited relative movement, sleeves carried by the sleeve carrier slats, pins carried by the pin carrier slats for engaging the sleeves to cause the two sets of carrier slats to move in unison, and means for vertically moving the upper frame relative to the lower frame.

5. A machine for forming ornamental linings for receptacles comprising a support provided with mechanism having projections for producing staggered projecting portions in the lining, and mutually relatively independent weight-rods disposed transversely of said projections for holding the depressed portions of the lining between the projecting portions while a backing is being applied to said projecting portions, the weight-rods being wholly supported by the lining to assume by gravity a central position between its high points.

6. A machine for ornamenting cloth comprising a bank of sleeves disposed in rows, a bank of pins, each pin being engageable in and adapted to project beyond a respective sleeve, means for holding work material on the sleeves with bends thereof disposed between the rows of sleeves, means for causing the pins to project through the sleeves and means for relatively moving associated pins and sleeves in a direction transversely of the bends of work material said last means being operable coincident with the operation of the said means for holding work material.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

WARREN E. SWARTZ.

Witnesses:
H. JOSEPH DOYLE,
M. E. DOWNEY.