

C. D. CRANDAL, DEC'D.
 N. A. CRANDAL, ADMINISTRATRIX.
 GLUE SPREADING MACHINE.
 APPLICATION FILED FEB. 19, 1910.

1,036,802.

Patented Aug. 27, 1912.

3 SHEETS—SHEET 1.

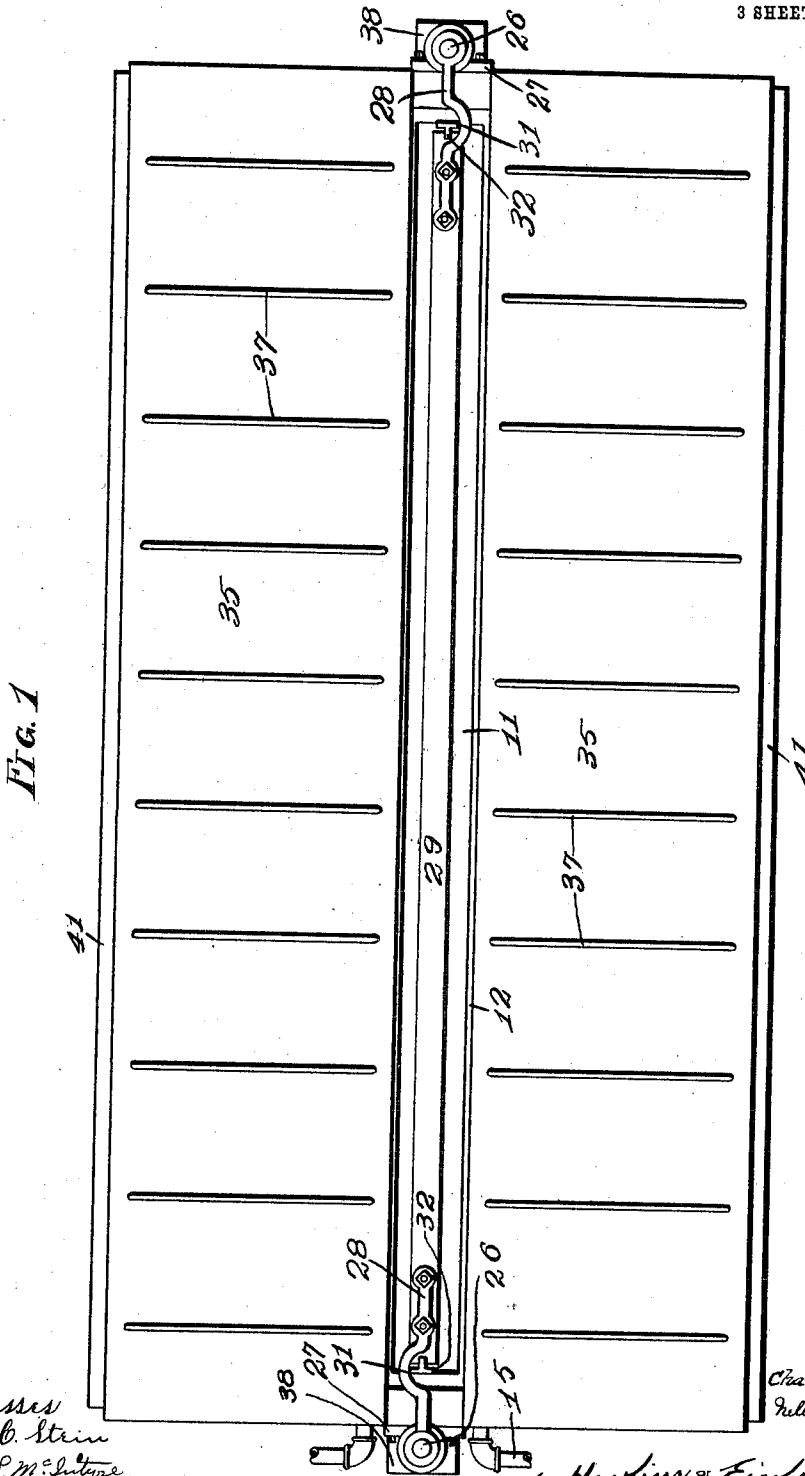


Fig. 1

Witnesses
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Inventor,
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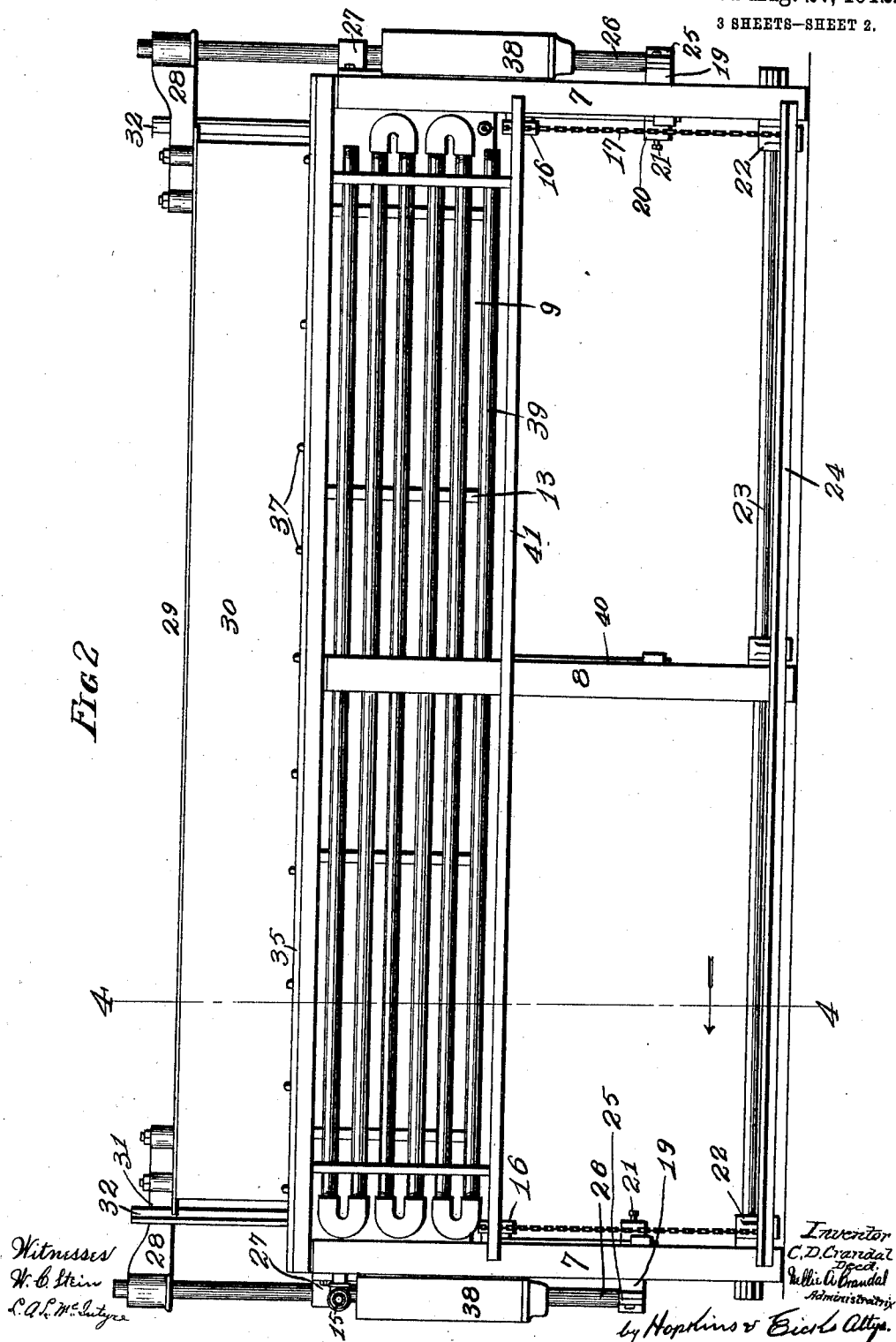
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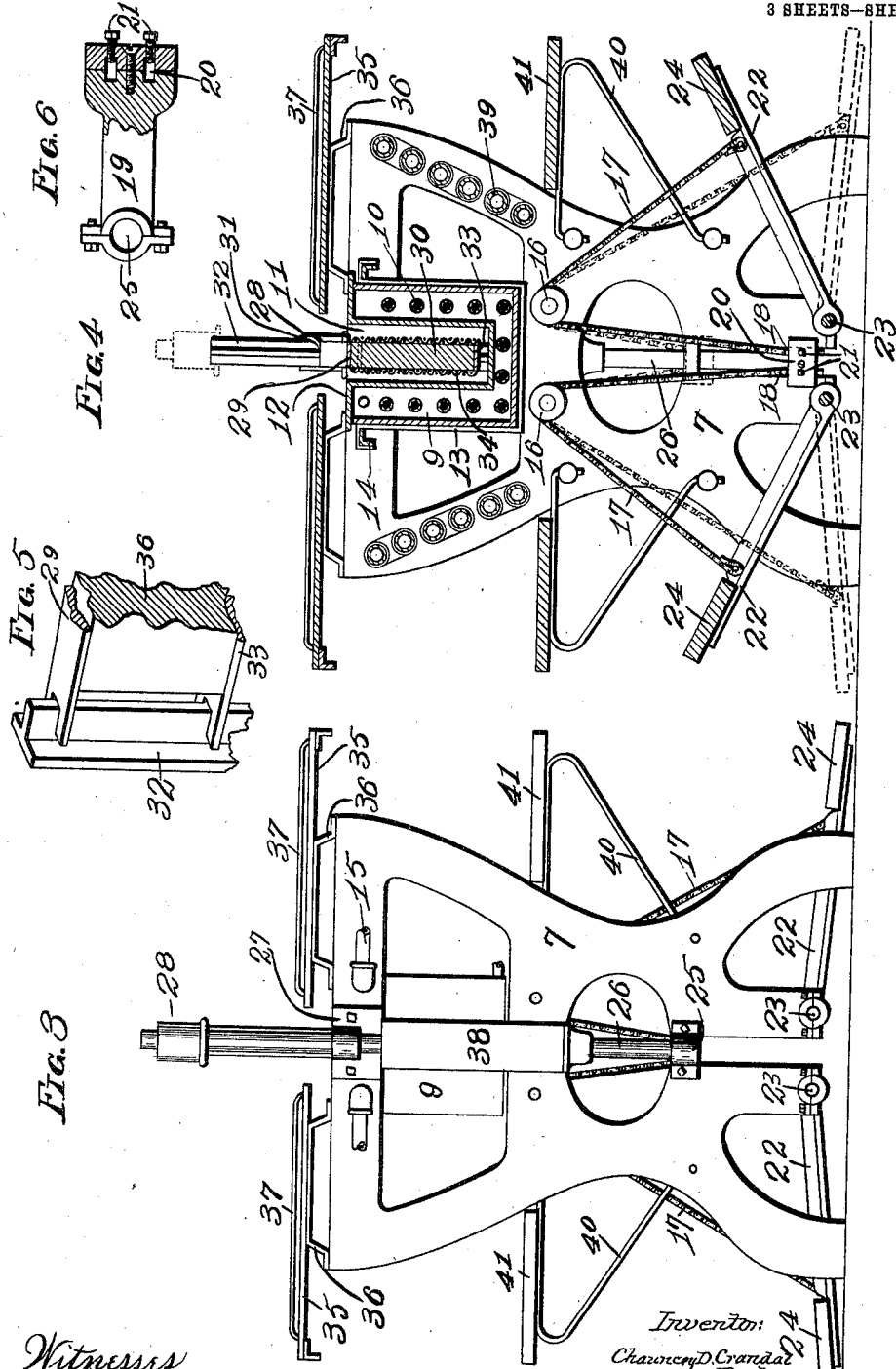
3 SHEETS-SHEET 2.



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3 SHEETS—SHEET 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CHAUNCEY D. CRANDAL, DECEASED, LATE OF ST. LOUIS, MISSOURI, BY NELLIE A. CRANDAL, ADMINISTRATRIX.

GLUE-SPREADING MACHINE.

1,036,802.

Specification of Letters Patent.

Patented Aug. 27, 1912.

Application filed February 19, 1910. Serial No. 544,836.

To all whom it may concern:

Be it known that CHAUNCEY D. CRANDAL, late a citizen of the United States, and late a resident of St. Louis, Missouri, deceased, 5 did invent certain new and useful Improvements in Glue-Spreading Machines, of which the following is a specification.

This invention relates to improvements in glue spreading machines, and has for its object 10 to provide a glue-spreading-plate submerged in a vat containing glue, and a means for raising the glue-spreading-plate out of the vat so that the material to be glued can be brought in contact with the 15 surface thereof, and the glue applied thereon.

A further object of this invention is to provide a machine having a vat containing glue located in a heated water receptacle 20 and a glue-spreading-plate arranged to dip into the glue and be raised so that the edges of the material to be glued may be brought in contact therewith and the glue spread equally on the surface and the surplus glue 25 removed therefrom.

In the drawings—Figure 1 is a top plan view of this invention. Fig. 2 is a side view of the same. Fig. 3 is an end view. Fig. 4 30 is a cross-sectional view taken on the line 4—4 of Fig. 2 and viewing the same in the direction indicated by the arrow. Fig. 5 is an enlarged detail perspective view of a portion of the glue-spreading-plate and its guide bar. Fig. 6 is an enlarged detail top 35 plan view of the clamp bar made use of in supporting the chains whereby the glue-spreading-plate is manipulated.

In the construction of this invention there is provided a suitable frame composed of 40 two end supports 7 and a center support 8. Between the end supports and passing through the center support is a water receptacle 9 in which is located a coil 10 through 45 which steam is circulated for the purpose of heating the water contained in the receptacle. In this receptacle is located a glue vat 11, the upper end of said vat provided with flanges 12 which extend laterally and rest 50 upon the top of the water receptacle so as to support said vat centrally in the water receptacle, at the same time preventing the heat from escaping out of the water receptacle.

The water receptacle 9 is supported in 55 hangers 13, the upper ends of said hangers

formed into hooks and pass over angle bars 14 extending across the machine from one end of the support to the other. The ends of the coil 10 are passed through one of the end supports and connected in the usual 60 manner to the ordinary steam supply, and the supply of steam can be regulated in the coil by means of a valve connected to the projecting end 15 of the supply pipe.

On the inner surface of each of the end 65 supports (see Fig. 6) is mounted a pair of pulleys 16 over which is passed a chain 17, the ends 18 of said chain secured to the clamp bar 19 (see Fig. 6) and held in the 70 jaws 20 of the clamp bar by means of the set screws 21. The opposite ends of the chain 17 are attached to the treadle levers 22 which are pivotally connected at their 75 lower ends at the point indicated by the numeral 23 to the end supports, and on the opposite ends of the treadle bars is attached a foot-board 24 by which the levers may be manipulated by the operator.

The ends 25 of the clamp bars 19 are attached to the lower end of the operating 80 rods 26 and said rods are guided in the bearing 27 attached to the end frames. The upper end of the supporting rods is provided with a bracket 28, the opposite ends of said brackets being attached to a bar 29 85 and said bar in turn is securely fastened to the upper edge of the glue-spreading-plate 30. The end of the bar 29 is recessed as indicated by the numeral 31 and fits over the T-bar 32 located at the ends of the glue vat, 90 and by this arrangement the glue-spreading-plate is held in perpendicular position while the same is being raised and lowered. The under surface of the glue-spreading-plate 95 is likewise provided with a bar 33 and is also provided with a recess to fit over the T-bar which will retain the glue-spreading-plate in rigid position.

The surface of the glue-spreading-plate is covered with soft heavy fabric 34 which is 100 to retain the glue after the glue-spreading-plate has been raised from the glue vat, and against said fabric is brought in contact the edge of the material to which glue is to be applied, and in order to rigidly support the 105 material while being brought in contact with the glue-spreading-plate is placed upon the top of the supports a table 35 mounted upon brackets 36, and at intervals along the surface of the table are provided guide bars 37. 110

On these bars the material to be glued is placed and by the raising of said bars slightly above the table the operator has an opportunity to readily and easily manipulate the material and pass his fingers beneath the same and the table.

On each of the operating rods is placed a weight 38. This weight has a tendency to hold the glue-spreading-plate in submerged position when the foot has been removed from the foot-treadle, thereby at all times keeping the glue-spreading-plate submerged in glue while the device is not in operation.

Between the end supports and on each side of the water receptacle (see Fig. 4) is placed an additional heating coil 39, and beneath the coil and attached to the end supports are brackets 40 on which are placed and supported shelves 41. The purpose of these shelves is to place the material thereon preparatory to applying the glue, and to heat the edges of the material so as to remove any chill from the contacting edges of the same.

In operating this device, the operator places the material to be glued on the table 35, then by placing the foot on the foot-treadle 24 and pressing downwardly, will cause the chains 17 to pull upon the operating rods, elevating the glue-spreading-plate out of the glue vat, and the operator then places the edge of the material against the surface of the gluing plate and in this manner an equal and even amount of glue is applied; and during every operation, when the operator releases the foot-treadle, the glue-spreading-plate is brought downwardly and dipped into the glue by means of the weights 38.

The machine is so constructed as to permit two operators to work at the device at the same time.

Having thus fully described this invention, what is claimed as new and desired to secure by the grant of Letters Patent, is:

1. In a glue spreading machine comprising a pair of end frames, a water receptacle suspended between said end frames, a steam coil located in the water receptacle to heat the water contained therein, a glue vat suspended in the water receptacle, a fabric covered glue spreading plate suspended vertically in said glue vat, a pair of operating rods mounted in bearings on said side frames and supported in the glue spreading plate,

a pair of foot treadles mounted between the side frames, a plurality of chains connecting the foot treadles and the operating rods for raising the glue spreading plate out of the glue vat, substantially as specified.

2. In a glue spreading machine comprising a pair of end frames, a water receptacle suspended between and supported by the end frames, a steam coil located in the water receptacle to heat the water contained therein, a glue vat suspended in and supported by the water receptacle, a glue spreading plate suspended vertically in said glue vat, a pair of operating rods mounted in bearings on the side frames, and supporting the glue spreading plate at their upper ends, a pair of foot treadles, a plurality of chains attached to the lower ends of the operating rod, and to the foot treadle for raising the rods and glue spreading plate, an additional heating coil supported by the frame, and valves beneath the same along which material is placed prior to the application of glue for heating the same, substantially as specified.

3. In a glue spreading machine comprising a pair of end frames, a water receptacle suspended between and supported by the end frames, a steam coil located in the water receptacle to heat the water contained therein, a glue vat suspended in and supported by the water receptacle, a fabric covered glue spreading plate suspended vertically in said glue vat, a pair of operating rods mounted in bearings on the side frames, and supporting the glue spreading plate at their upper ends, a pair of foot treadles, a plurality of chains attached to the lower ends of the operating rod, and to the foot treadle for raising the rods and glue spreading plate, an additional heating coil supported by the frame, and valves beneath the same along which material is placed prior to the application of glue for heating the same, substantially as specified.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

NELLIE A. CRANDAL,
Administratrix.

Witnesses:

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W. C. STEIN.