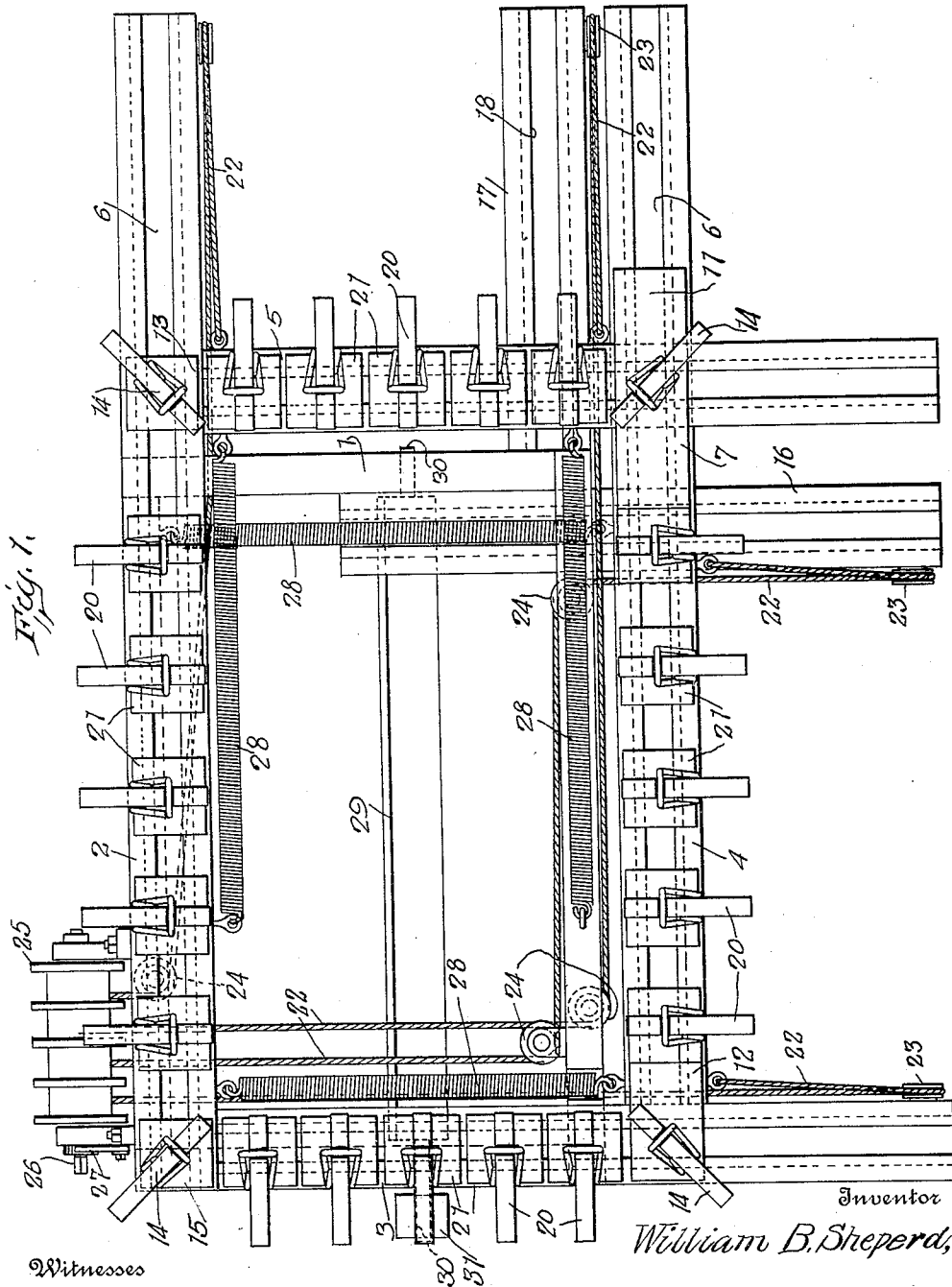


W. B. SHEPERD.
 DRYING FRAME.
 APPLICATION FILED MAY 18, 1911.

1,110,080.

Patented Sept. 8, 1914.

2 SHEETS—SHEET 1.



Witnesses

Howard Walrusley.
 Harriet L. Hammaker.

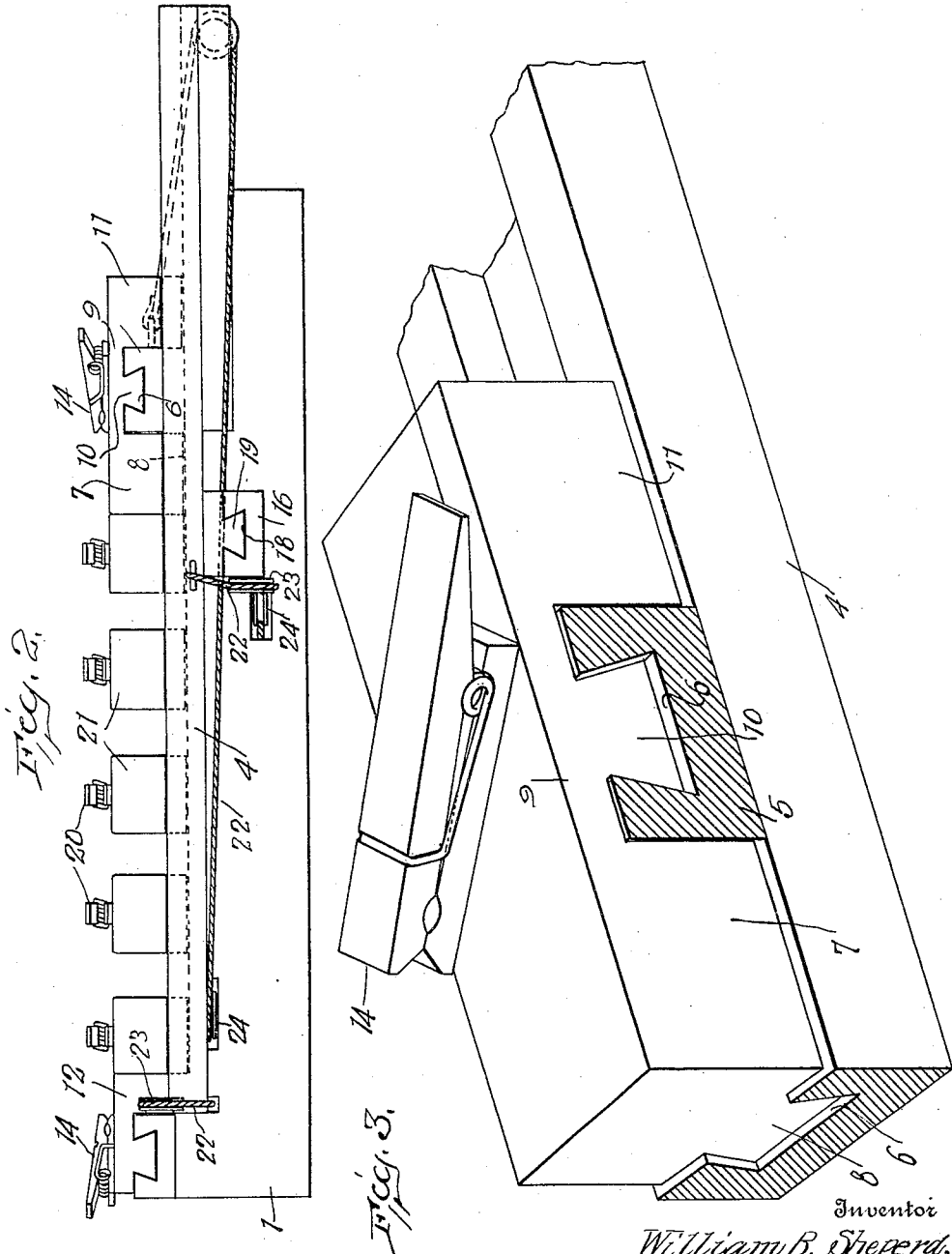
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UNITED STATES PATENT OFFICE.

WILLIAM B. SHEPHERD, OF URBANA, OHIO.

DRYING-FRAME.

1,110,080.

Specification of Letters Patent.

Patented Sept. 8, 1914.

Application filed May 13, 1911. Serial No. 627,983.

To all whom it may concern:

Be it known that I, WILLIAM B. SHEPHERD, a citizen of the United States, residing at Urbana, in the county of Champaign and State of Ohio, have invented certain new and useful Improvements in Drying-Frames, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to drying frames or stretchers for blankets, curtains or the like.

The object of the invention is to provide a drying frame which can be adjusted to stretch the blanket or other article to its full size and which will be of such a character and have the fastening devices so arranged as to stretch the blanket to its correct shape and size and to maintain the same in that position while it is being dried.

It is also an object of the invention to provide such a device which will be of a construction sufficiently strong and rigid to enable it to handle at one time a number of blankets or other articles and which will be easy to operate; and, further, to provide means cooperating with the drying frame to facilitate the drying of the blankets or articles.

In the accompanying drawings, Figure 1 is a top, plan view of a drying frame embodying my invention; Fig. 2 is a side elevation of the same; and Fig. 3 is a fractional detail view of the adjustable frame members and the connecting block therefor.

In these drawings I have illustrated one embodiment of my invention and have shown the same as comprising a frame which is preferably, but not necessarily, rectangular in shape and which has a part of its side members fixed against movement and has other of its side members adjustable relatively both one to the other and to the fixed side members. A fastening device adapted to engage the corner of the blanket or other article is arranged at each corner of the rectangular frame and is so mounted as to be maintained at the corner of the frame and in the same relation to the blanket regardless of the adjustment of the movable members of the frame. In the present construction the drying frame is mounted upon a suitable base 1 which is preferably rectangu-

lar in shape and has mounted thereon four side members 2, 3, 4 and 5 constituting the drying frame. As here shown these side members are in the form of bars having dove-tailed grooves 6 in their upper surfaces. The bars 2 and 3 are rigidly secured to the base 1 and have no movement relatively either to the base or to each other. The bars 4 and 5 are movable relatively both one to the other and to the fixed bars 2 and 3. The bar 5 is arranged substantially parallel with the bar 3 and the bar 4 is arranged substantially parallel with the bar 2 and in a plane lower than the plane of the other members of the frame to enable it to extend beneath the bar 5. The bars 4 and 5 are connected one to the other at their point of intersection, this connection being such as to permit them to have relative movement. In the present instance the connection is formed by means of a block 7 adjustably mounted on the bar 4 by means of a dove-tail projection 8 extending into the groove 6 of that bar. This block has a longitudinal extension 9 extending above the bar 5 and having a projection or tongue 10 extending transversely thereto and fitting into the dove-tail groove 6 of the bar 5. Preferably, a second block 11 is connected to or formed integral with the extension 9 and has a projection entering the dove-tail groove 6 of the bar 4 on the outer side of the bar 5. This construction while not necessary to the operation of the device is sometimes desirable as it tends to eliminate any binding of the parts and to facilitate the operation thereof. The bars 4 and 5 are each provided at the ends adjacent the fixed bars 2 and 3, respectively, with blocks 12 and 13 having longitudinally extending portions arranged above the respective fixed bars and provided with transverse tongues or projections adapted to fit into the dove-tailed grooves of the fixed bars. These blocks are similar in construction to the block 7 shown in Fig. 3, but, instead of being adjustably mounted on the bars 4 and 5, they are rigidly secured thereto and have movement relatively to the fixed bars 3 and 2 only.

Mounted on each of the corner blocks 9, 12 and 13 is a fastening device adapted to engage the corner of the blanket or other

article and support the same in the proper relation to the corner of the frame. In the present instance these fastening devices are shown as spring clamps 14, but any suitable fastening device may be used. A similar fastening device is mounted on a block 15 mounted at the corner of the two fixed members of the frame. The fastening devices carried by the several corner blocks occupy fixed relations to the frame and to the blanket supported therein, and, when the blanket has been engaged by these fastening devices and the frame expanded to stretch the blanket, the latter will be retained at all times in a true rectangular position and will not be distorted or pulled out of shape. The outer ends of the bars 4 and 5 in addition to being connected one to the other are supported on suitable guides carried by the base 1. As here shown these guides consist of bars 16 and 17 rigidly secured to the base and extending at right angles to and beneath the bars 4 and 5, respectively. The supporting bars 16 and 17 are provided with dove-tailed grooves 18 to receive dove-tailed tongues or projections 19 secured to the lower surfaces of the bars 4 and 5. In this manner the movable members of the frame are maintained in their proper relation to the fixed members of the frame in all positions thereof and effectually prevented from turning or twisting under any strain which may be imposed thereon.

Mounted upon each of the frame members is a series of fastening devices adapted to engage and support the edges of the blanket between the corners thereof. These fastening devices, indicated at 20, are similar to the fastening devices 14 carried by the corner blocks and are mounted upon blocks 21 having dove-tailed tongues or projections extending into the dove-tailed grooves of the frame members. The bar 4 being arranged in a lower plane than the other bars the blocks 21 mounted on that bar are of a greater thickness than are the blocks on the other bars to support the fastening devices in substantially the same horizontal plane with the fastening devices carried by the blocks on the remaining bars.

Any suitable mechanism may be employed for adjusting the movable frame members. In the present instance I accomplish this by means of a series of cables, preferably of steel, which are indicated at 22, and which are secured at their outer ends to the outer sides of the respective movable frame members, thence extend outward about guides 23 mounted near the outer ends of the fixed frame members and the supporting bars 16 and 17, thence inward and about other guides 24 to a drum 25 having one end of its shaft squared, as shown at 26, to receive a crank for rotating the same. A pawl and ratchet, indicated at 27, holds the

drum against rotation in a rearward direction. It will be apparent, therefore, that when the drum is actuated and the cable wound upon the same the movable frame members 4 and 5 will be carried outward and that the corner blocks 12 and 13 will move outward along the line of the fixed frame members while the corner block 7 will move outward in a line diagonal to the frame. The movable bars may be returned to their contracted or normal positions in any desired manner, but, in the present instance, I accomplish this by means of springs 28 each of which is connected at one end to one of the movable frame members and at the other end to one of the fixed frame members, the arrangement being such that the springs tend at all times to move the movable bars 4 and 5 toward the respective fixed bars 2 and 3.

When desirable a suitable agitator may be provided to impart movement to the blankets supported by the drying frame and facilitate the drying thereof. In the present instance I have shown such an agitator in the form of a board or strip 29 having at its opposite ends trunnions 30 journaled in the end members of the base 1 and provided at one end with a driving pulley 31 or other suitable means for revolving the same. The arrangement of this agitator is such that as it revolves the edges thereof will come in contact with the blanket in the frame and lift the same, and, after the edge of the agitator has passed, the blanket will drop. In this manner a constant rising and falling movement is imparted to the blanket which materially facilitates the drying thereof.

The operation of the device will be readily understood from the foregoing description of the several parts thereof and it will be apparent that when a blanket is mounted within the frame and secured thereto by the several fastening devices, the expansion of the frame will not only extend the blanket to its correct size and shape, but will maintain the same in this position during the drying process, this being due to a large extent to the manner in which the corner fastening devices are arranged and this arrangement being such as to maintain them at all times in the same relation to the drying frame and to the blanket supported therein. It will further be apparent that the device is of a simple construction and easy to operate.

While I have shown and described one form of the invention it will be understood that this form is chosen for the purpose of illustration only and that I do not wish to be limited to the details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A drying frame of the character described consisting of a plurality of members, means for expanding said frame, fastening devices carried by said members, and a fastening device at each corner of said frame and occupying a fixed relation thereto, said frame member fastening devices and said corner fastening devices defining a rectangle.

2. In a drying frame of the character described having two movable members, a part mounted adjacent to said frame and operatively connected to said movable members, whereby said part is capable of simultaneously moving said members to expand said frame, fastening devices carried by said members, and yieldable means connected at one end to said movable members, said means being adapted to be put under tension when said frame is expanded and thereby tend to contract the same.

3. A device of the character described consisting of a plurality of members, means for expanding said frame, fastening devices carried by said frame members, and a fastening device at each corner of said frame and so arranged that one is stationary, one movable longitudinally of said frame, one movable transversely thereto, and one movable diagonally, during the expansion of said frame, and all of them occupying a fixed relation to their respective corners during said expansion, said frame member fastening devices and said corner fastening devices defining a rectangle.

4. A drying frame comprising two fixed members, two movable members, fastening devices secured to said members in substantially the same horizontal plane, a drum arranged at one side of said frame, cables having one end of each secured to said drum and the other end to one of said movable members, whereby the winding of said cables on said drum will simultaneously adjust said movable members relatively to each other and to said fixed members, and a fastening device at each corner of said frame and occupying a fixed relation thereto during the expansion of said frame.

5. A drying frame of the character described having two fixed members and two intersecting movable members, means for simultaneously adjusting said movable members relatively to each other and to said fixed members and thereby expanding said frame longitudinally and laterally, yieldable means connected to said fixed members and to said movable members, said last mentioned means being adapted to be put under tension when said frame is expanded and adapted to contract said frame when desired, and fastening means adjustably connected to said mov-

able members near their point of intersection.

6. A drying frame comprising two fixed members, two movable members each having a groove therein, fastening devices secured to said members, a member arranged at one side of said frame and operatively connected to said movable members, whereby said movable members may be simultaneously adjusted relatively to each other and to said fixed members, a block having projections to fit the grooves in said movable members, so as to adjustably secure said movable members together, and a fastening device at each corner of said frame and held in fixed relation thereto.

7. A drying frame comprising two fixed members, two movable members, fastening devices secured to said members, a drum arranged at one side of said frame, and cables having one end of each secured to said drum and the other end to one of said movable members, whereby the winding of said cables on said drum will simultaneously adjust said movable members relatively to each other and to said fixed members.

8. A drying frame comprising two fixed bars arranged at an angle one to the other, having their adjacent ends connected and provided with grooves in the upper sides thereof, two movable bars having grooves in their upper sides and arranged at angles to the respective fixed bars, means for connecting the ends of said movable bars to said respective fixed bars, means for adjustably connecting said movable bars one to the other, fastening devices mounted on said bars, a drum arranged at one side of said frame, guides mounted at the outer ends of said fixed bars, and cables each secured at one end to one of said movable bars, extending about said guides and connected with said drum.

9. A drying frame comprising two fixed members, two movable members each having a groove therein, fastening devices secured to said members, a drum arranged at one side of said frame, cables having one end of each secured to said drum and the other end to one of said movable members, whereby the winding of said cables on said drum will simultaneously adjust said movable members relatively to each other and to said fixed members, and a block having projections to fit the grooves in said movable members, so as to adjustably secure said movable members together.

10. A drying frame of the character described having two movable members and two fixed members, means for simultaneously adjusting said movable members relatively to each other and to said fixed members and thereby expanding said frame longitudinally and laterally, and yieldable means connected to said fixed members and

to said movable members, said last mentioned means being adapted to be put under tension when said frame is expanded and adapted to contract said frame when desired.

11. An expansible drying frame composed of a plurality of members, a series of fastening devices for each of said members, and a fastening device at each corner of said frame, said corner fastening devices being

substantially in line with the series of fastening devices on the adjacent frame members and adapted to remain in such relation during the expansion of said frame.

In testimony whereof, I affix my signature in presence of two witnesses.

WILLIAM B. SHEPERD.

Witnesses:

WILL POLAND,

GEO. W. POLAND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."