

No. 714,001.

Patented Nov. 18, 1902.

F. S. MacDOUGALL.
CLOTHES DRIER.

(Application filed June 27, 1902.)

(No Model.)

Fig. 1.

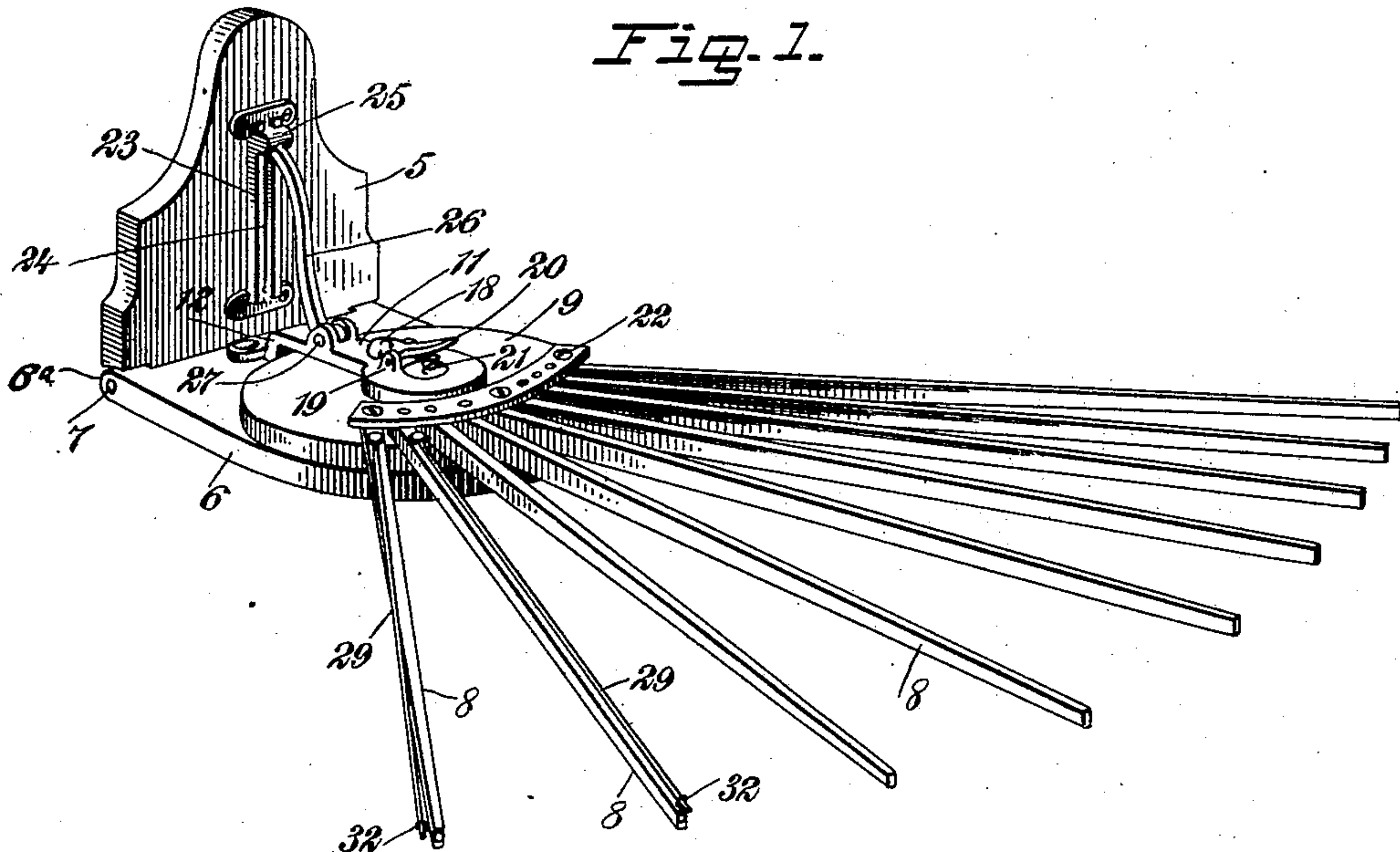
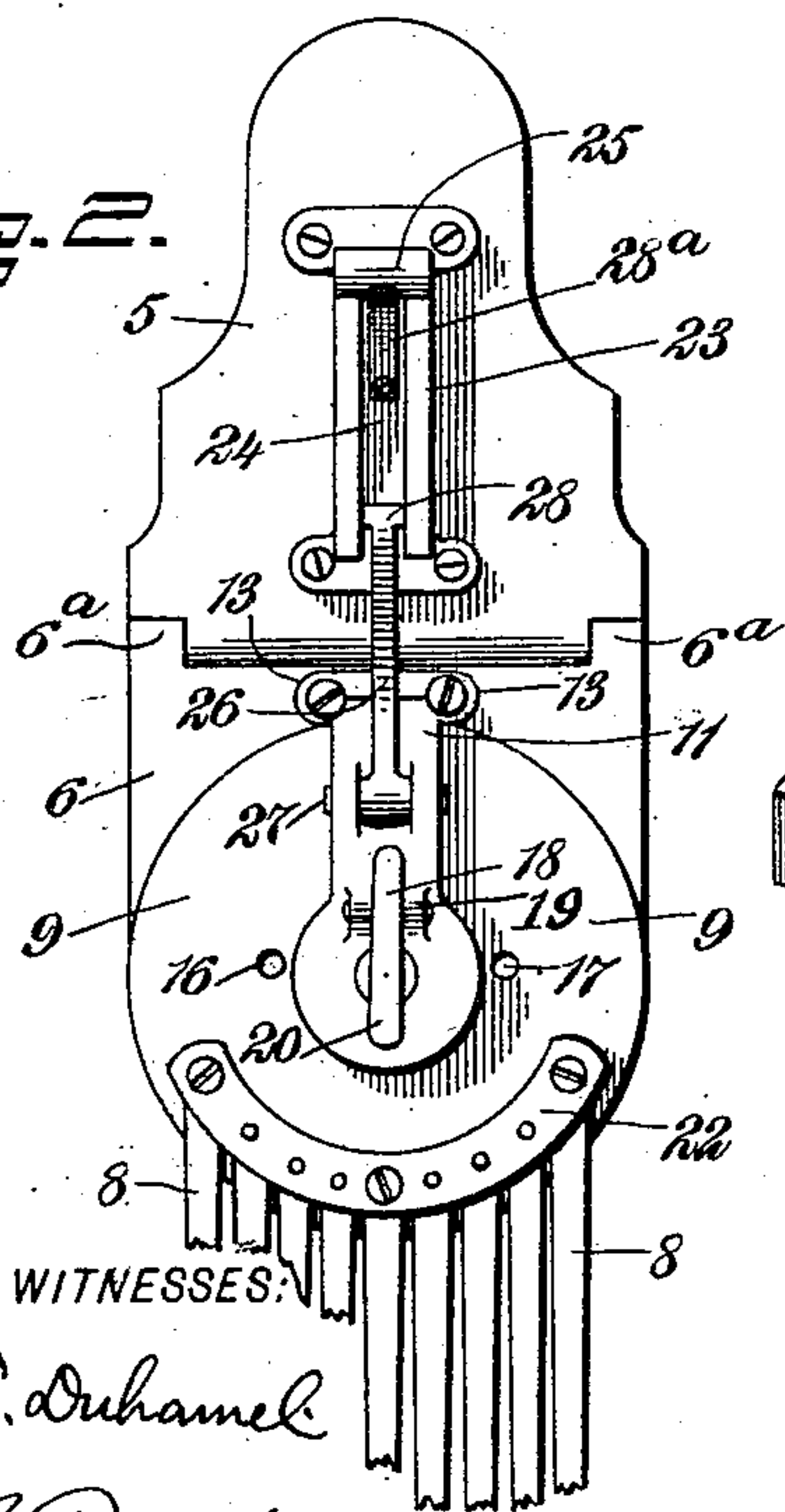


Fig. 2.



WITNESSES:

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Fig. 3.

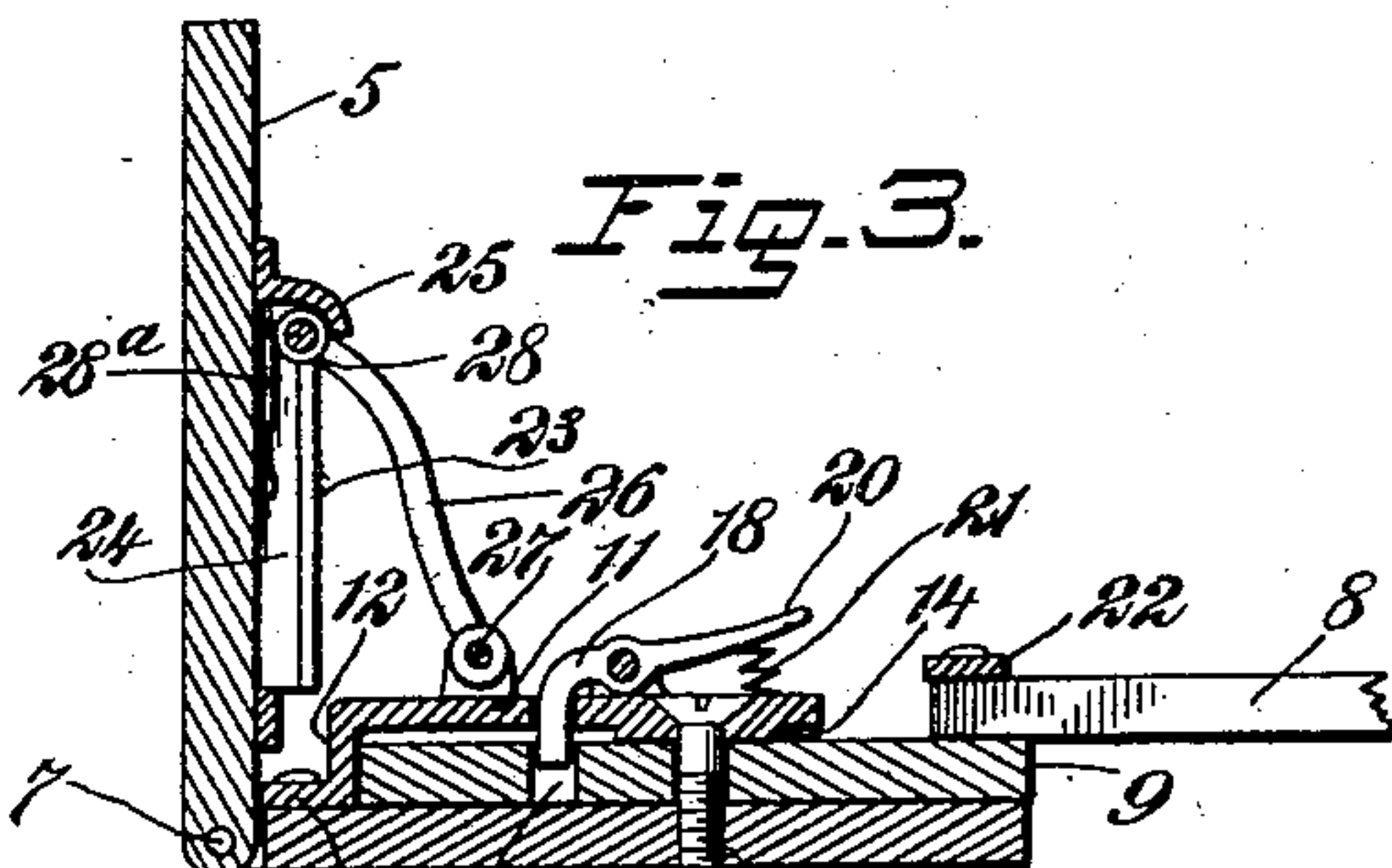
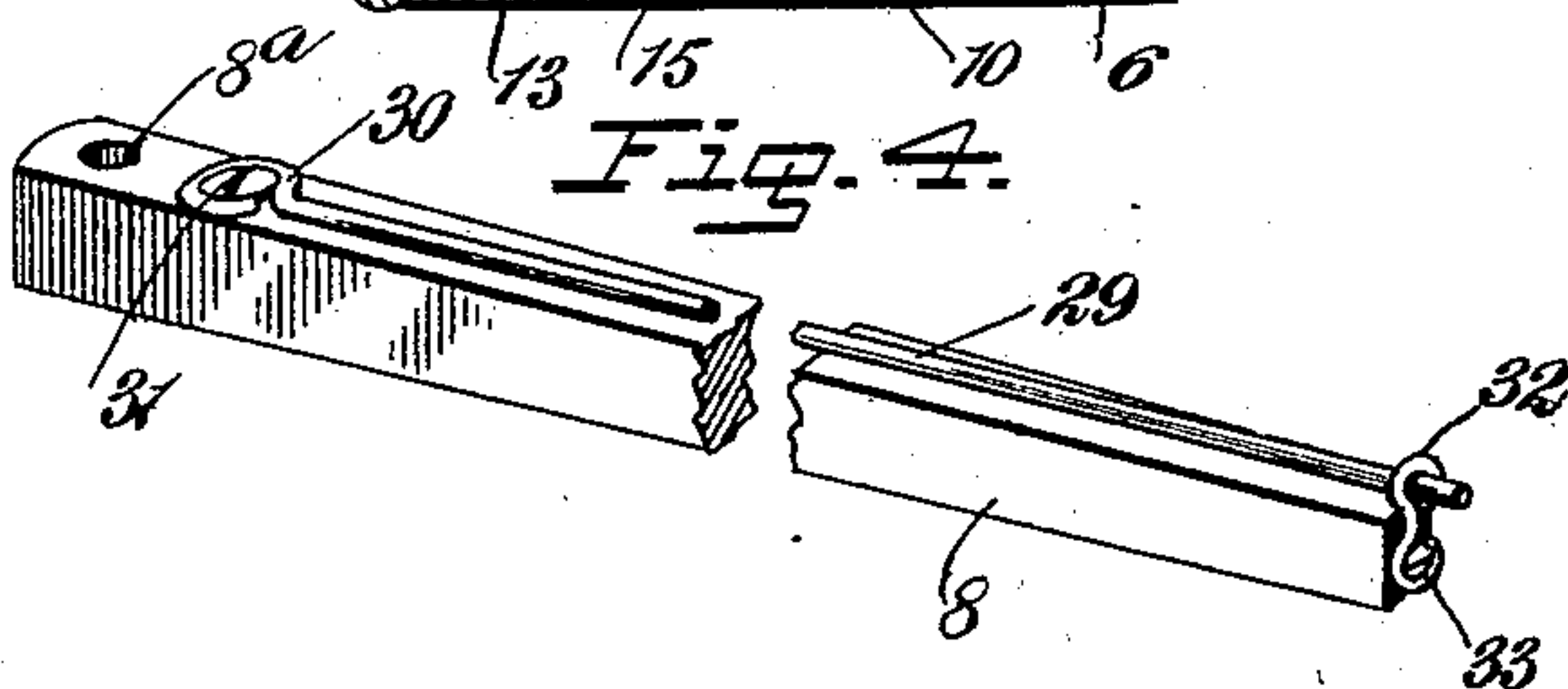


Fig. 4.



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CLOTHES-DRIER.

SPECIFICATION forming part of Letters Patent No. 714,001, dated November 18, 1902.

Application filed June 27, 1902. Serial No. 113,499. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK S. MACDOUGALL, a citizen of the United States, and a resident of Seattle, in the county of King and State of Washington, have invented a new and Improved Clothes-Drier, of which the following is a full, clear, and exact description.

My invention relates to improvements in clothes-driers; and the object that I have in view is the provision of improved means adapted to allow the group of arms when adjusted to their horizontal operative positions to be swung in either direction from a central position and toward a side position, thus enabling the arms to be compactly arranged with relation to a wall, a porch, or any other place where it may be hung.

A further object is to provide improved means for holding the carrier for the group of arms in its adjusted positions.

With these ends in view the invention consists in the construction and combination of parts, which will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a clothes-drier embodying my improvements and showing the arms spread out in their horizontal operative positions. Fig. 2 is a front elevation of the drier, omitting a portion of the arms and showing the parts lowered to their folded positions. Fig. 3 is a vertical sectional view through the supporting devices for the arms, showing the parts in the position of Fig. 1; and Fig. 4 is a detail perspective view of a portion of one of the suspension-arms and the clamping-rod attached thereto.

5 designates a back board, and 6 is a hinged leaf. In the manufacture of these parts I prefer to form lugs 6^a at the rear end portions of the leaf, and these lugs are fitted in the recesses at the lower corners of the back board, as shown by Figs. 1 and 2, the parts being pivotally connected together, as indicated at 7.

8 designates a series of suspension-arms which are mounted on the hinged leaf 6, so as to be adjustable therewith in an ordinary manner; but instead of connecting the arms directly to the hinged leaf I employ an ad-

justable carrier, which enables me to collectively change the position of the group of arms. This carrier is in the form of a plate 9, which is arranged to rest upon the hinged leaf 6, and said carrier is confined in place by means of a pivot screw or bolt 10 and a fixed plate 11. This fixed plate is preferably cast in a single piece of metal with an offset depending portion 12 at its rear end, and this depending portion is formed with lugs 13, which rest upon the leaf 6 and are secured firmly thereto by screws or their equivalents. The fixed plate is arranged to overhang the pivoted carrier 9, and at its free end said fixed plate is formed with a depending boss or enlargement 14, the latter being arranged to engage with the top face of the pivoted carrier 9. The screw or bolt 10 passes through an opening in the fixed plate 11 and is secured in the hinged leaf 6, said screw or bolt loosely engaging with the carrier 9, so as to pivotally attach the latter to the hinged leaf.

The pivoted carrier 9 is provided with a series of three holes, the middle one of which is indicated at 15 and the side holes at 16 and 17. (See Figs. 2 and 3.) On the outer end of the fixed plate is pivotally mounted a trigger 18, the latter arranged to pass through an opening in the fixed plate and to fit into either of the openings 15, 16, or 17 in the pivoted carrier. Any suitable means may be adopted for pivotally mounting the trigger on the fixed plate, but, as shown, I have arranged this trigger between lugs 19, which are cast as a part of the fixed plate 11. The trigger is extended beyond its pivotal support in the lugs 19, so as to produce a finger-piece 20, and against this finger-piece is arranged to act a coiled spring 21, the same being seated on the fixed plate and adapted to be confined in place between said plate and the trigger in any preferred way.

A clamping-plate 22 of curved form is secured to the pivoted carrier 9, at or near one edge thereof, and this clamping-plate is spaced with relation to the carrier in a manner to receive the inner ends of the group of suspension-arms 8. These arms are fitted between the carrier and the clamping-plate, as shown more clearly by Fig. 3, and the arms are pivoted individually to the pivoted carrier by suitable screws or rivets which pass through

openings 8^a provided in the inner ends of the arms. (See Fig. 4.) It will be seen that the group of arms is pivotally mounted on the carrier-plate 9, so as to be adjustable there-
 5 with around the axis afforded by the bolt or screw 10, and this is desirable, because the pivoted carrier can be shifted to one side or the other in order to collectively adjust the arms to a compact position with relation to a wall, a
 10 porch, or any other place against which the drier is hung. At the same time the arms 8 can be swung out away from the wall and from one another in order to bring the arms in their operative horizontal positions, and
 15 this construction allows the use of the entire group of arms or of one or more arms located at the ends of the group.

The trigger 18 is adapted to engage with the aperture 15 of the pivoted carrier when
 20 the drier is adjusted to the position shown in Fig. 1 in order to bring the whole series of arms into position for use; but when it is desired to compactly fold the arms against a wall the trigger should be released from the
 25 aperture 15, and the carrier 9 can then be turned sufficiently to bring the aperture 16 or 17 into position for engagement by the trigger 18, the spring 21 of which automatically impels the beak of the trigger into en-
 30 gagement with one or the other of the side apertures 16 or 17.

23 designates a casting which is secured in a vertical position to the back board 5, and it is provided with a longitudinal guideway 24,
 35 the latter being offset at its upper end, as indicated at 25. A supporting-arm 26 is pivotally connected, as at 27, to the fixed plate 11 at a point adjacent to the trigger 18, and the upper end of this supporting-arm is provided
 40 with a stud 28, arranged to travel in the slot 24 of the casting and to fit in the offset portion 25 thereof when the leaf 6 is raised to its horizontal position, thereby locking the arm 26 against downward movement under the
 45 weight of the load on the arms 8 and maintaining the leaf 6, the carrier 9, and the arms 8 in their operative positions. The stud 28 of the supporting-arm may be pressed back by hand from engagement with the offset in
 50 the casting, and the leaf 6, together with its attached parts, may be lowered to the position shown by Fig. 2, thus enabling the drier to be folded in a downward direction and to occupy a compact position against a wall or
 55 other surface.

Each suspension-arm 8 is provided with means adapted to clamp clothing which may vary in thickness firmly on the arm in a man-
 60 ner to prevent the fabrics from being blown away by the wind. I prefer to equip the suspension-arm with a yieldable or spring rod 29, the same being shown more clearly by Fig. 4. The rod of each arm is secured firmly thereto near its pivoted end by any suitable
 65 means—as, for example, by forming an eye 30 in the arm and passing through the eye a screw 31, the latter being embedded in the

suspension-arm 8. The free end of the clamping-rod is adapted for engagement with a catch 32, which may be of any suitable form, 70
 said catch being attached to the outer or free end of the suspension-arm 8. As shown by Fig. 4, the catch 32 is bent from wire, so as to form a hook or eye with which the free end of the clamping-rod 29 is adapted to engage, 75
 and this catch may be fastened or attached to the arm 8 by suitable means—such, for example, as by a screw 33, which passes through an eye that is formed in one end of the catch 32. This catch may be adjusted to one side 80
 or the other of the suspension-arm, and the clamping-rod may be disengaged therefrom, after which the clamping-rod may be swung away from the suspension-arm. The cloth-
 85 ing of any desired thickness may now be fitted over the arm 8 in order to hang therefrom, and then the clamping-rod 29 is adjusted to engage with the catch, and finally the catch and the rod should be adjusted in order to bring the rod upon or over the arm 8 in a po- 90
 sition to confine the fabrics between the arm and the rod. In view of the fact that the rod is made of spring metal it can yield or give somewhat in order to firmly clamp thick and thin fabrics between itself and the suspen- 95
 sion-arm.

In Fig. 1 I have shown two of the arms at the left of the group as having the spring clamping-rods; but it is evident that each suspension-arm of the series may be equipped 100
 with the clamping-rod.

If desired, a spring 28^a (shown by Figs. 2 and 3) may be arranged within the guideway 24 in a position to press the stud 28 of the arm 26 into the offset 25, thus holding the 105
 arm 26 in a locked position.

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

1. A clothes-drier, consisting of a suitable 110
 support, a plate fixed to said support, a shift-able carrier-plate pivoted between the support and the fixed plate and provided with an arcuate series of apertures disposed concentric with the pivot of said carrier-plate, a 115
 series of suspension-arms pivoted individually to the carrier-plate and shiftable there-with around the pivot of said plate, a trigger pivoted to the fixed plate and arranged to fit in either of the apertures of the carrier-plate 120
 to lock the latter in different positions, and a spring acting against said trigger to normally hold it in engagement with the carrier-plate.

2. A clothes-drier, consisting of a pivotal 125
 leaf arranged to fold downwardly, a fixed plate on said leaf, a carrier-plate fitted between the leaf and the fixed plate, a pivot passing through the carrier-plate and secured to said fixed plate and the hinged leaf, a lock- 130
 ing device mounted on the fixed plate and engaging with the carrier-plate to hold it in different positions on said leaf, a series of arms pivoted individually to the carrier-plate

to fold compactly together, and also shiftable
with said carrier-plate to one side of the leaf,
and also foldable with said leaf when it is
dropped to a vertical position, and means
5 connected to the hinged leaf to sustain the
latter, and the devices mounted therein, in
horizontal operative position.

3. A clothes-drier, comprising a back board,
a leaf hinged thereto, a fixed plate attached
10 to the hinged leaf, a perforated carrier-plate
disposed between the leaf and the fixed plate
and pivotally connected thereto, a trigger
pivoted on the fixed plate and arranged to

engage with either of the apertures in the
carrier-plate, a spring normally acting against 15
the trigger, an arm pivoted to the fixed plate
and having means for engaging with the back
board, and a group of suspension-arms piv-
oted to the carrier-plate.

In testimony whereof I have signed my 20
name to this specification in the presence of
two subscribing witnesses.

FREDERICK S. MACDOUGALL.

Witnesses:

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ROBERT W. KELSEY.