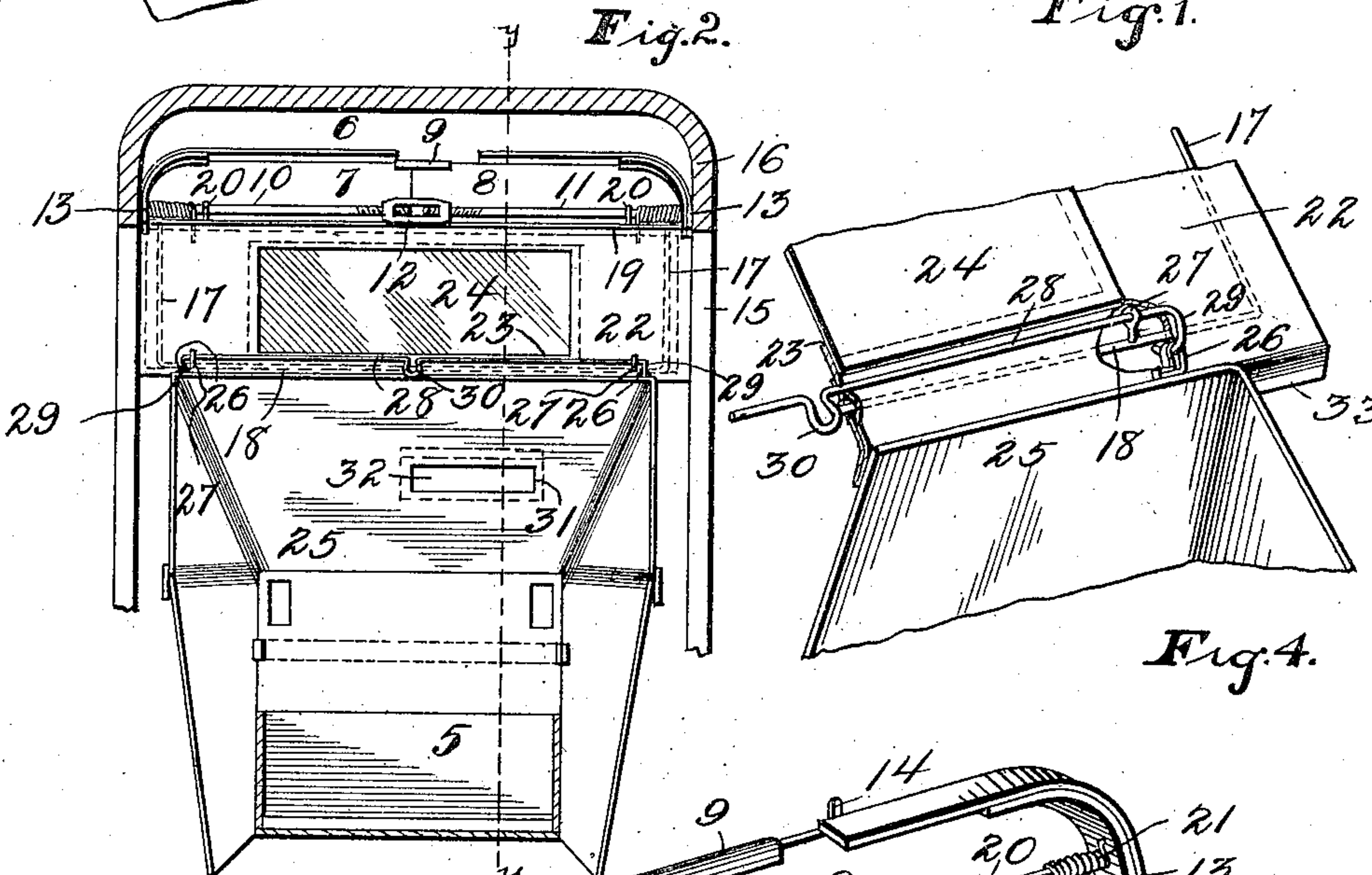
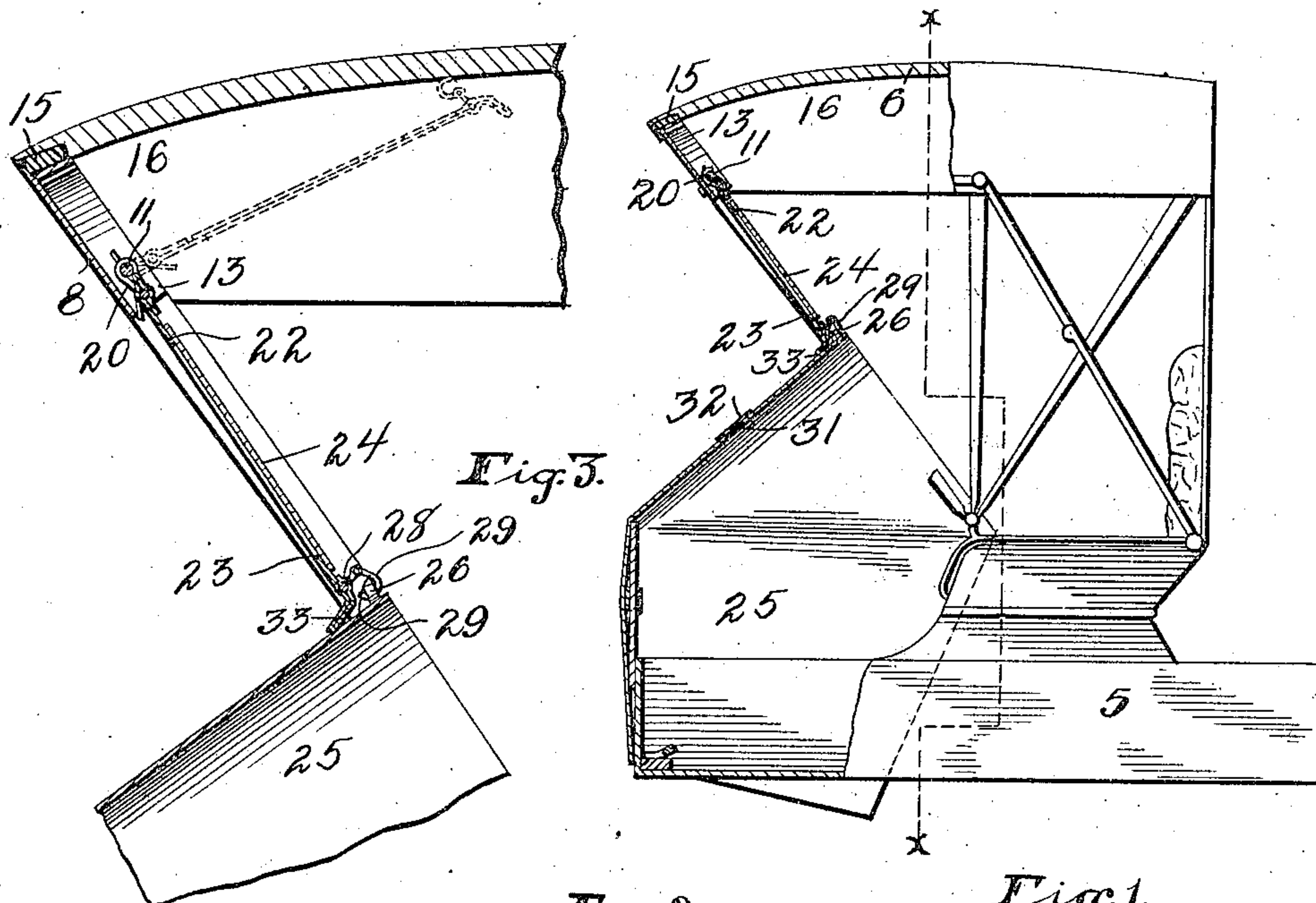


No. 846,820.

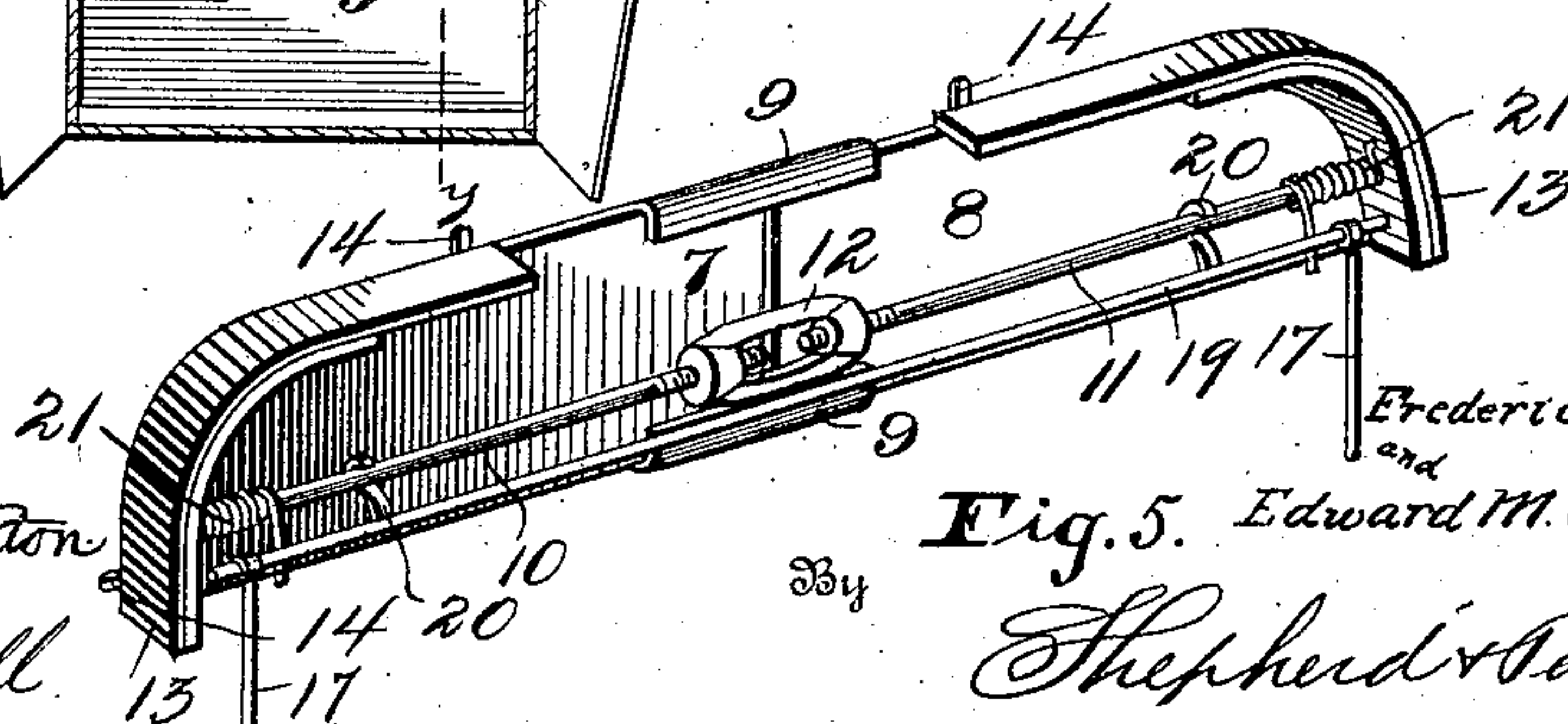
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F. C. BROCK & E. M. DU BOIS.
STORM FRONT FOR VEHICLES.

APPLICATION FILED MAY 14, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK C. BROCK AND EDWARD M. DU BOIS, OF COLUMBUS, OHIO, ASSIGNORS TO THE VEHICLE APRON & HOOD COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF OHIO.

STORM-FRONT FOR VEHICLES.

No. 846,820.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed May 14, 1906. Serial No. 316,643.

To all whom it may concern:

Be it known that we, FREDERICK C. BROCK and EDWARD M. DU BOIS, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Storm-Fronts for Vehicles, of which the following is a specification.

Our invention relates to a storm-front for vehicles, and has for its object the provision of a device of this character which will completely cover the front portion of a vehicle, while providing a sight-opening through which the driver may see the road.

A further object of the invention is the provision of a storm-front which may be readily attached to the vehicles already in use.

A further object of the invention is the provision of a storm-front comprising two sections, the upper edge of the lower section being adapted to engage with the lower edge of the upper section by means of fastening devices which may be quickly disconnected when desired.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawing, Figure 1 is a side elevation, partially in section, of a buggy body and top having our improvements applied thereto. Fig. 2 is a transverse vertical section upon line *xx* of Fig. 1 looking toward the front of the buggy. Fig. 3 is an enlarged vertical section through the front portion of a buggy-top and through the upper portion of the lower storm-front upon an enlarged scale to more clearly bring out the construction of said parts. Fig. 4 is a detail perspective view illustrating the manner in which the lower edge of the upper section and the upper edge of the lower section are detachably connected, and Fig. 5 is a detail perspective view illustrating a supporting-frame which is adapted to be secured at the front edge of the buggy-top.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, the numeral 5 designates the buggy-body, which is provided with the usual top 6. The supporting-frame (shown in Fig. 5) is made in two sections, these sections being designated by the numerals 7 and 8. The section 7 is provided

with lips 9, between which the inner end of the section 8 is slidably disposed. In other words, the section 8 telescopes into the section 7. Rods 10 and 11 are threaded into a turnbuckle 12, said turnbuckle being adapted to force said rods away from each other to spread the outer downturned ends 13 of the sections 7 and 8 away from each other. Lugs 14 are carried by the sections 6 and 7 and lie in front of the front bow 15 when the supporting-frame (shown in Fig. 5) is placed in position. The turnbuckle then being operated to force the rods 10 and 11 away from each other, the outer downturned ends 13 will be forced against the sides 16 of the buggy-top to firmly bind the supporting-frame in position, the telescopic arrangement of this supporting-frame permitting this spreading of said frame, as will be readily understood. A rectangular frame formed by wires 17, 18, and 19 is hingedly connected to the rods 10 and 11 by means of hooks 20. Springs 21 normally hold this frame up against the under side of the buggy-top, as is illustrated in dotted lines in Fig. 3. This frame is covered with any suitable waterproof material 22 and has a sight-opening 23 formed therein, which is preferably closed by a sheet of celluloid or other transparent material 24. A waterproof lap-robe 25 extends across the front and partially around the sides of the buggy. The lower portion of this lap-robe may be secured to the buggy in any desired manner. Along its upper edge this robe is provided with looped straps 26. Mounted in eyelets 27, carried by the wire 18, is a bar 28, having hooks 29 formed upon its opposite ends, said hooks being adapted to engage the looped straps 26. This bar 28 is bowed, as at 30, to form an operating-handle. An opening for the reins is formed in the robe 25 at 31, said opening being covered by a flap 32. The lower edge of the upper section of the storm-front forms an apron 33, which partially overlies the cover 25.

The operation of the device is as follows: When it is desired to completely close the front of the vehicle to prevent the entrance of wind or rain, the upper edge of the lower section 25 is lifted and the lower edge of the upper section is depressed against the tension of the springs 21, said upper section swinging from the hooks 20. The hooks 29

are then caused to engage the looped straps 26, at which time the sight-opening 24 lies in such position that the driver may clearly see the road. If the horse connected to the
 5 buggy should run away, or if for any reason it should be desired to quickly open the front of the vehicle, it is but necessary to lift the handle 30, which withdraws the hooks 29 from engagement with the looped straps 26
 10 and permits the upper section of the storm-front to be thrown to the top of the buggy under the influence of the springs 21. This of course permits the lower section to drop. The driver may then grasp the lines upon the
 15 outside of the cover 25 and immediately have as complete control of the animal as though the storm-front had not been in position. It will readily be seen that the supporting-frame may be placed in position without
 20 changing the present structure of vehicles in the least degree.

While the elements herein shown and described are well adapted to serve the purposes for which they are intended, it is to be
 25 understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claims.

30 What we claim is—

1. A storm-front for vehicles comprising a swinging section, and a supporting-frame for said swinging section, said supporting-frame being made in two sections one of which telescopes within the other, and means for forcing
 35 said sections apart.

2. A storm-front for vehicles comprising a swinging upper section, a supporting-frame for supporting said swinging upper section,
 40 said supporting-frame being made in sections which are slidable with relation to each other, rods carried by said sections, and a turnbuckle threaded upon said rods and adapted to force said rods and said sections apart.

45 3. In a device of the character described, a

supporting-frame made in sections which are slidable with relation to each other, stop-lugs carried by said sections, rods connected to said sections, and a turnbuckle threaded upon said rods and adapted to force said sections and said rods apart. 50

4. In a device of the character described, the combination with a supporting-frame made in two sections, said sections being slidable with relation to each other, of means for
 55 forcing said sections apart, a frame hingedly connected to said last-named members, means for normally holding said frame in an elevated position, and a waterproof covering carried by said frame. 60

5. In a device of the character described, the combination with a supporting-frame formed of sections which are slidable with relation to each other, rods carried by said sections, a turnbuckle carried by said rods and
 65 adapted to force said sections apart, a rectangular frame hingedly connected to said rods, a covering carried by said frame, means for normally holding said frame in an elevated position, and a sheet of transparent
 70 material which covers a sight-opening formed in said covering.

6. A storm-front for vehicles comprising a supporting-frame, said supporting-frame being made in sections slidable with relation to
 75 each other, and means for forcing said sections apart.

7. A storm-front for vehicles comprising a supporting-frame, said supporting-frame being made in sections slidable with relation to
 80 each other, and means for forcing said sections apart to thereby frictionally bind said supporting-frame within a buggy-top.

In testimony whereof we affix our signatures in presence of two witnesses.

FREDERICK C. BROCK.

EDWARD M. DU BOIS.

Witnesses:

C. C. SHEPHERD,

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