Nov. 9, 1926. 1,606,658

A. MILLS

PROTECTIVE COVER

Filed Nov. 16, 1925 3 Sheets-Sheet 1

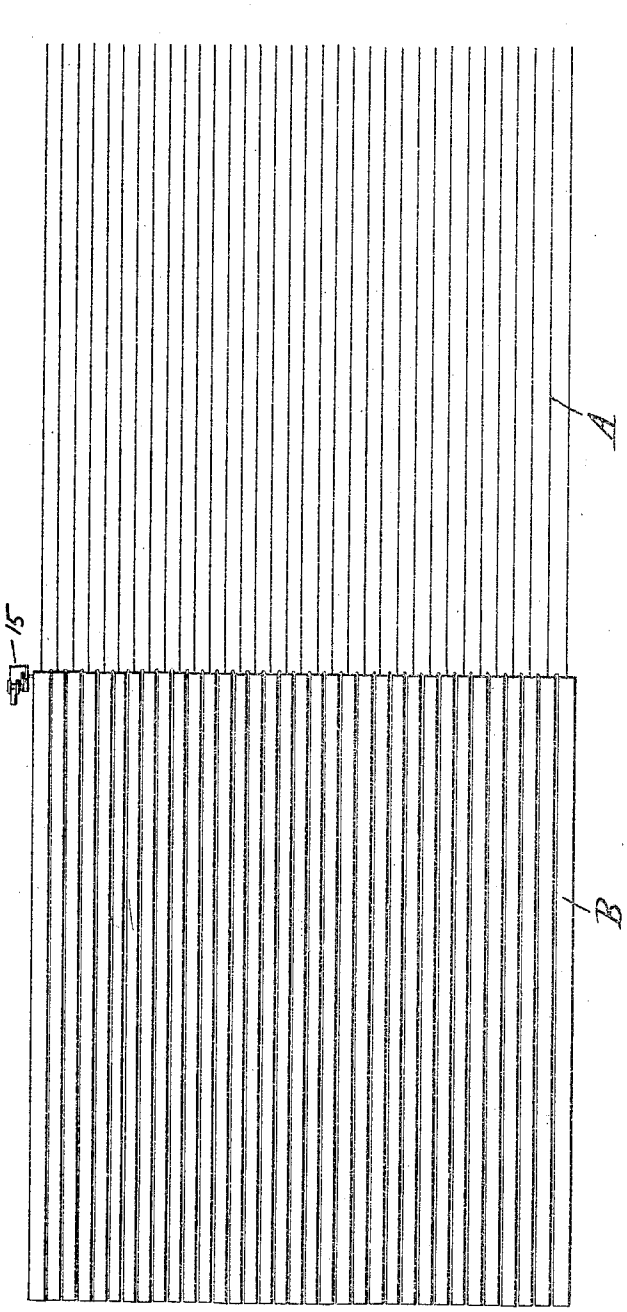


Fig. 1.

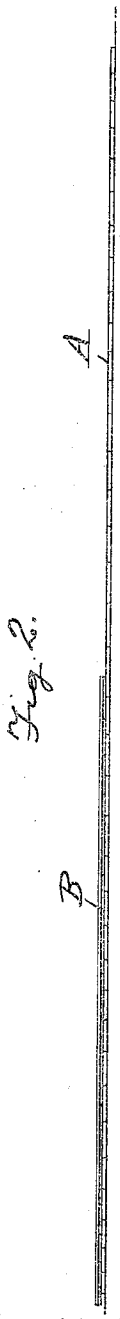


Fig. 2.

Augustus Mills

INVENTOR

BY Victor J. Evans

ATTORNEY

WITNESS: Gerald Hennessy

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Filed Nov. 16 1925 3 Sheets-Sheet 2

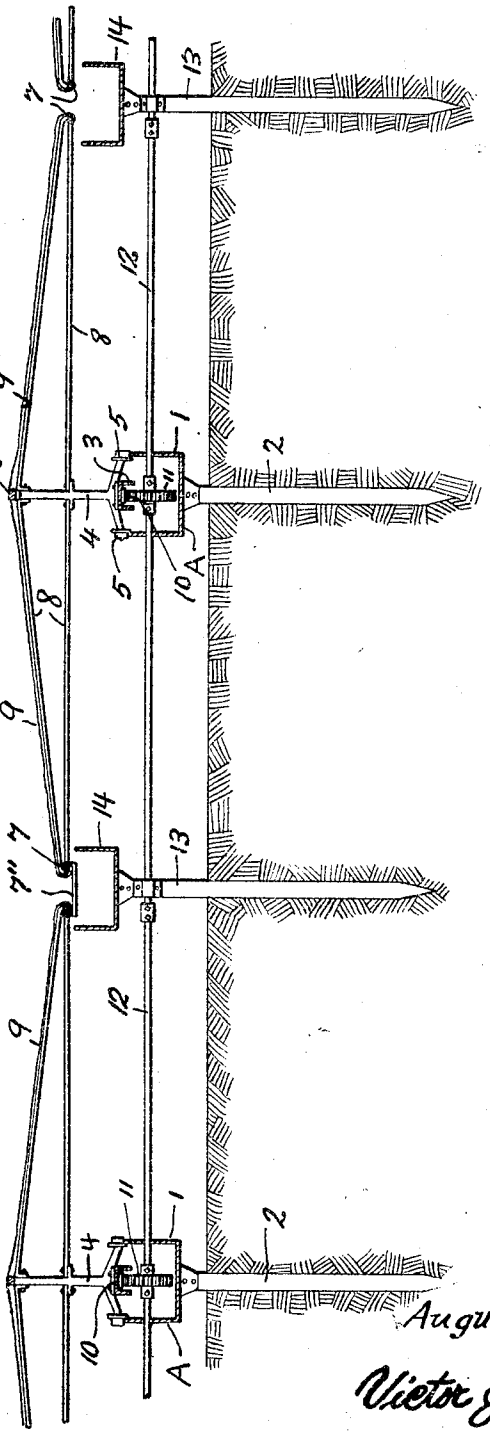


Fig. 3.

Augustus Mills
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Filed Nov. 16. 1925 3 Sheets-Sheet 3

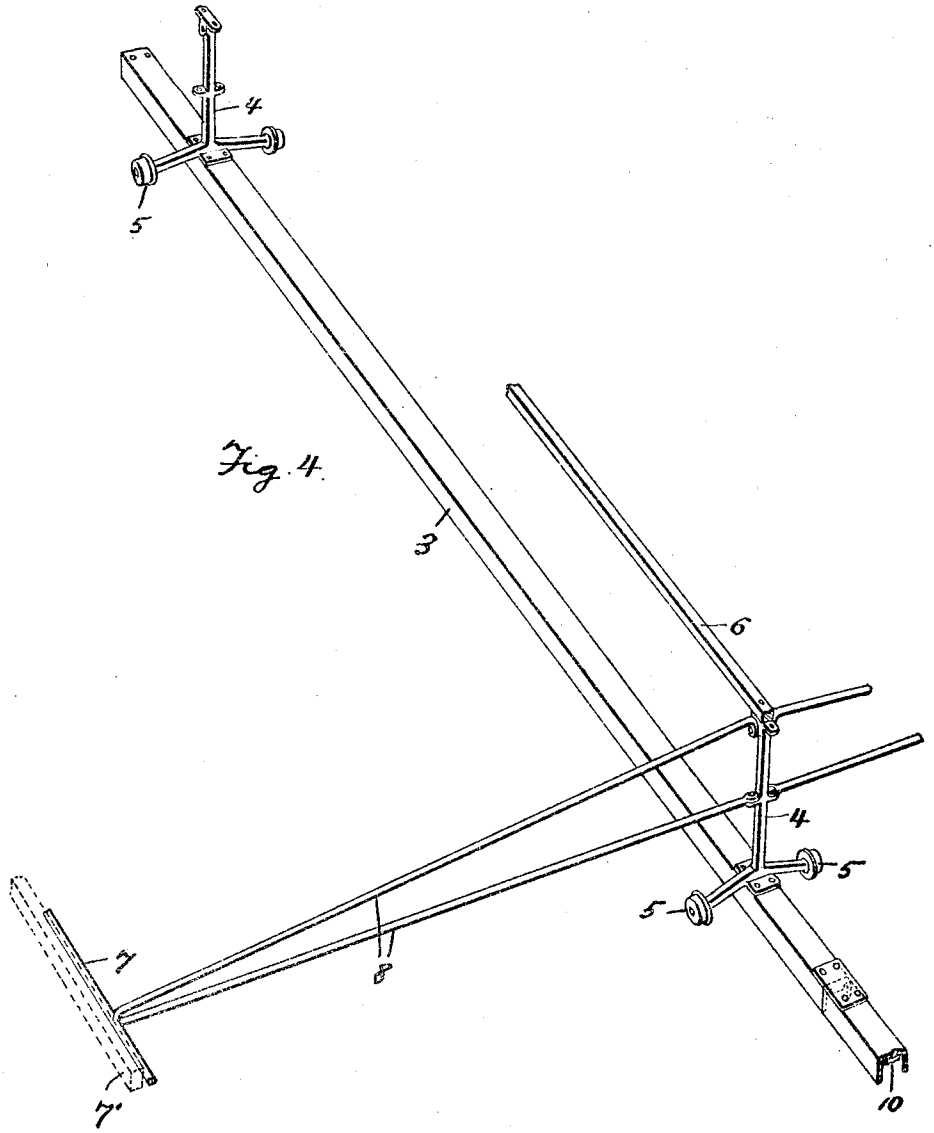


Fig. 4.

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Patented Nov. 9, 1926. 1,606,658

UNITED STATES PATENT OFFICE.

AUGUSTUS MILLS, OF NEW SMYRNA, FLORIDA.

PROTECTIVE COVER.

Application filed November 16, 1925. Serial No. 69,541.

This invention relates to a covering for crops in a field, the general object of the invention being to provide means for enabling the covering means to be placed over the crops when desired or removed when necessary.

Another object of the invention is to provide means for catching water running off the covering means and conducting it to a point where it can do no damage to the crops.

A further object of the invention is to provide means for moving the entire covering means simultaneously, to cover and uncover the crops.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a plan view of a field showing the invention in use.

Figure 2 is an elevation of Figure 1.

Figure 3 is a transverse sectional view through Figure 1.

Figure 4 is a perspective view of a part of a covering supporting frame.

As shown in Figures 1 and 2, I provide a plurality of spaced parallel tracks A which extend across a field, the crops in which are to be protected and across a field which is not to be planted, so that when the covering means are not in use covering the crops in the first field, such means can be moved over the unplanted field. This second field can be used for the second growing season while the first field is left idle. The covering means are shown at B and these also extend parallel and have wheels thereon which engage the tracks A.

Each track is composed of a channel shaped member 1 supported above the field by the posts 2, the upper edges of the vertical members of the channel shaped member forming the track for the wheels of the covering means.

The covering means comprises a number of long sectional frames to which canvas or the like is secured. Each frame is composed of sections suitably connected together and each section comprises an inverted channel beam 3, the inverted T-shaped posts 4 fastened to the beam and having their arms provided with the wheels 5 for engaging the track parts, the top strip 6 supported by the upper ends of the posts and the side strips 7 which are supported from the posts by the braces 8, the braces being arranged in pairs, as shown in Figure 4. The canvas covering 9 has its edges fastened to the strips 7 with its center passing over the strip 6 so that the cover slopes from its center towards each side.

As before stated, the wheels 5 engage the upper edges of the channel member 1 and the beam 3 has a rack 10 therein which is engaged by a toothed wheel 11 arranged in the channel member 1. The wheels 11 are connected together by the shafting 12, passing through the members 1 and supported by the posts 13 which are arranged in rows which alternate with the rows of posts 2 and these posts 13 support the troughs 14 which are arranged to receive the water running off the covering means. The troughs are so arranged that each trough will receive the water from one-half of a pair of adjacent covering means and each trough slopes from its center toward its ends so that the water will be conducted to the ends of the planted field. The shafting 12 can be driven from any suitable source of power, Figure 1 showing it being driven from a small motor 15.

From the foregoing, it will be seen that the covered frames are arranged in parallel relation over the field so that the plants in the field are protected from rain, frost, hail and the sun, but when it is desired to uncover the plants, it is simply necessary to turn the shafting so as to cause the toothed wheels to engage the racks in the channel beams of the frames when all the frames will be moved simultaneously from over the field. The water dripping from the frames will be carried off by the troughs.

While the invention is mainly designed to protect plants from frost, heavy dews, rain and the like, it will, of course, be understood that it can also be used to protect the plants from the hot sun.

If desired, wooden strips 7′ may be fastened to the members 6 and 7 to receive the fastening means for the cover and this cover may be made of metal instead of canvas.

The elements may also be connected together across the troughs by the bars 7'' to strengthen the structure.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A protective covering for plants comprising a plurality of elevated tracks, a wheeled frame supported on each track, a covering on the frame and elevated troughs for carrying off water dropping from the covering.

2. A covering device for plants, comprising an elevated track, a frame having depending central parts, wheels on said parts engaging the track, a rack connected with said depending parts, a toothed wheel carried by the track and engaging the rack, means for rotating the toothed wheel, and a covering for the frame.

3. Covering means for plants, comprising a number of elevated tracks, a frame supported on each track, each frame having depending parts, wheels thereon engaging the track, a covering for the frame, a rack on the depending part, toothed wheels supported by the tracks and engaging the racks, shafting connecting the toothed wheels together, means for rotating the shafting, and elevated troughs for receiving water falling from the covered frames and conveying it to the ends of the field.

In testimony whereof I affix my signature.

AUGUSTUS MILLS.