

F. C. CLARKE.

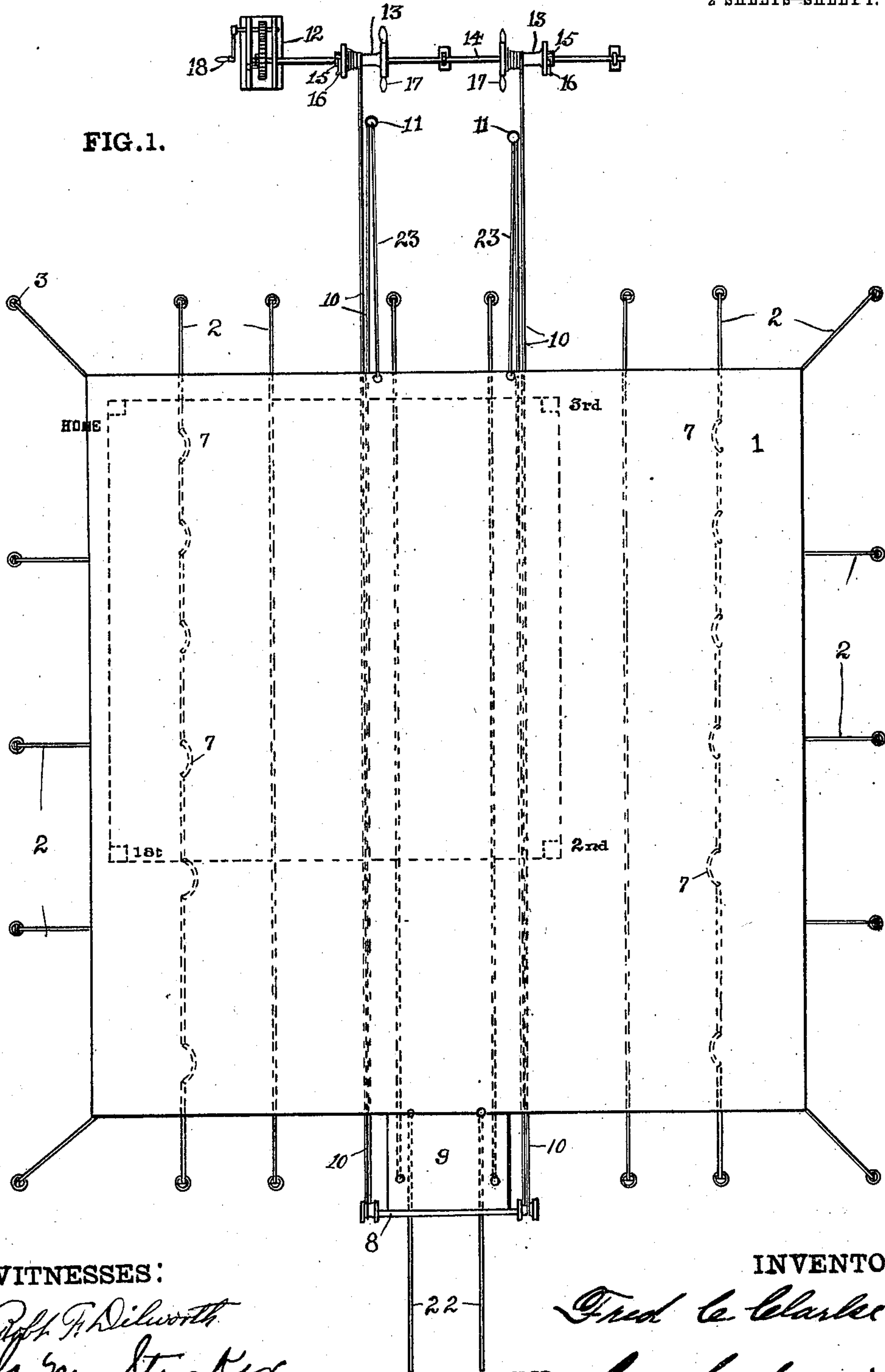
DIAMOND COVER.

APPLICATION FILED JUNE 7, 1909.

983,857.

Patented Feb. 7, 1911.

2 SHEETS—SHEET 1.



WITNESSES:

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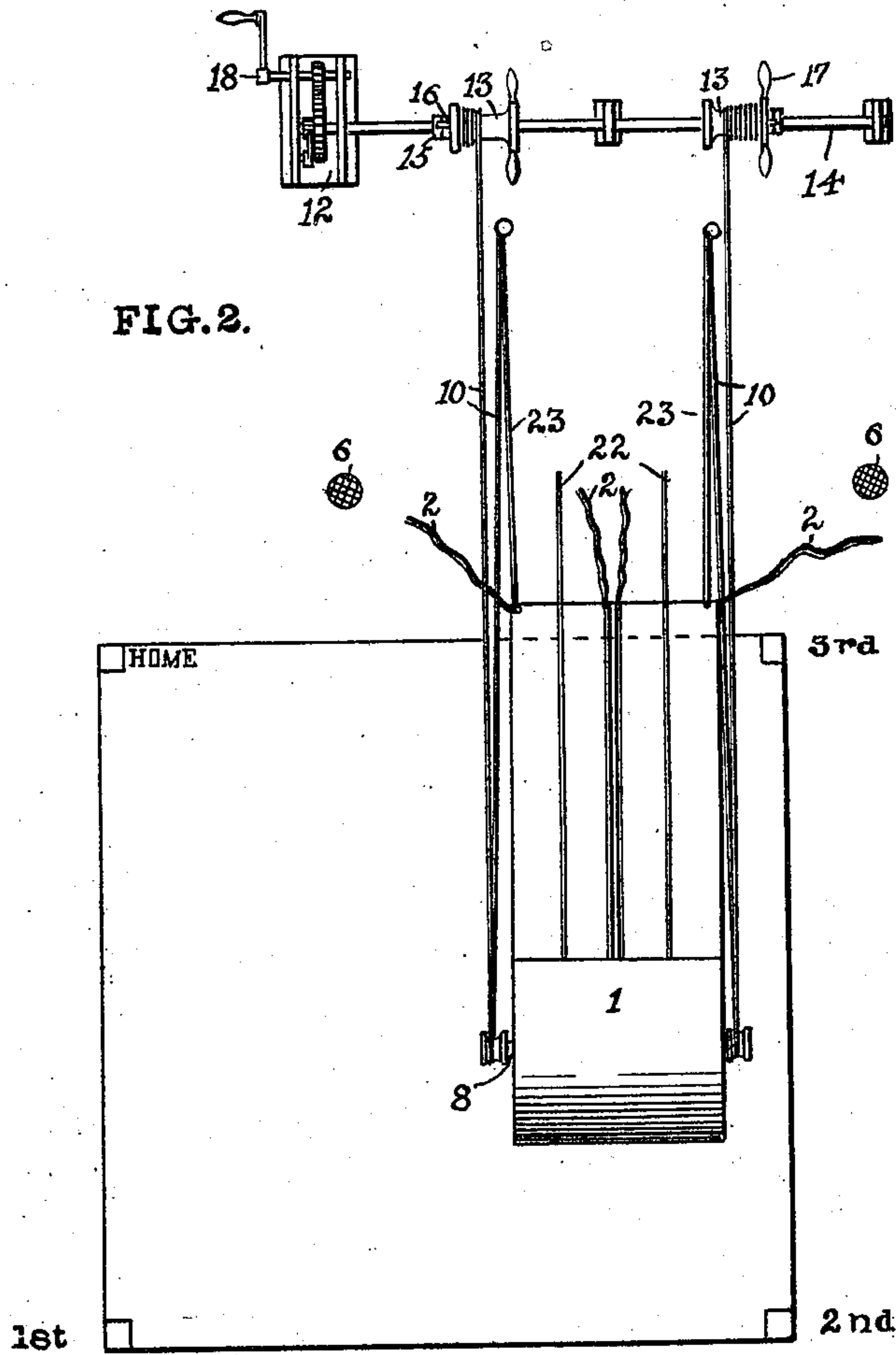


FIG. 3.

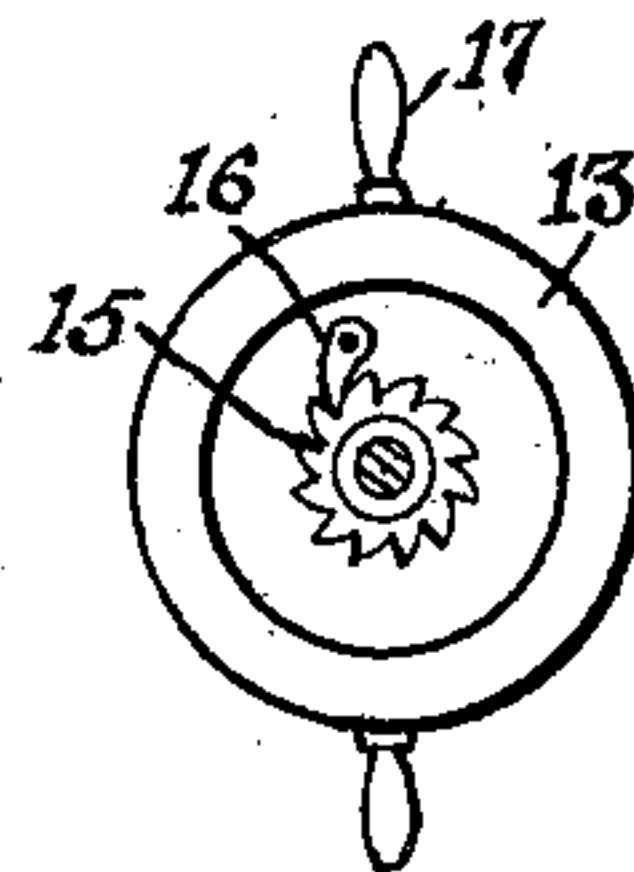


FIG. 5.

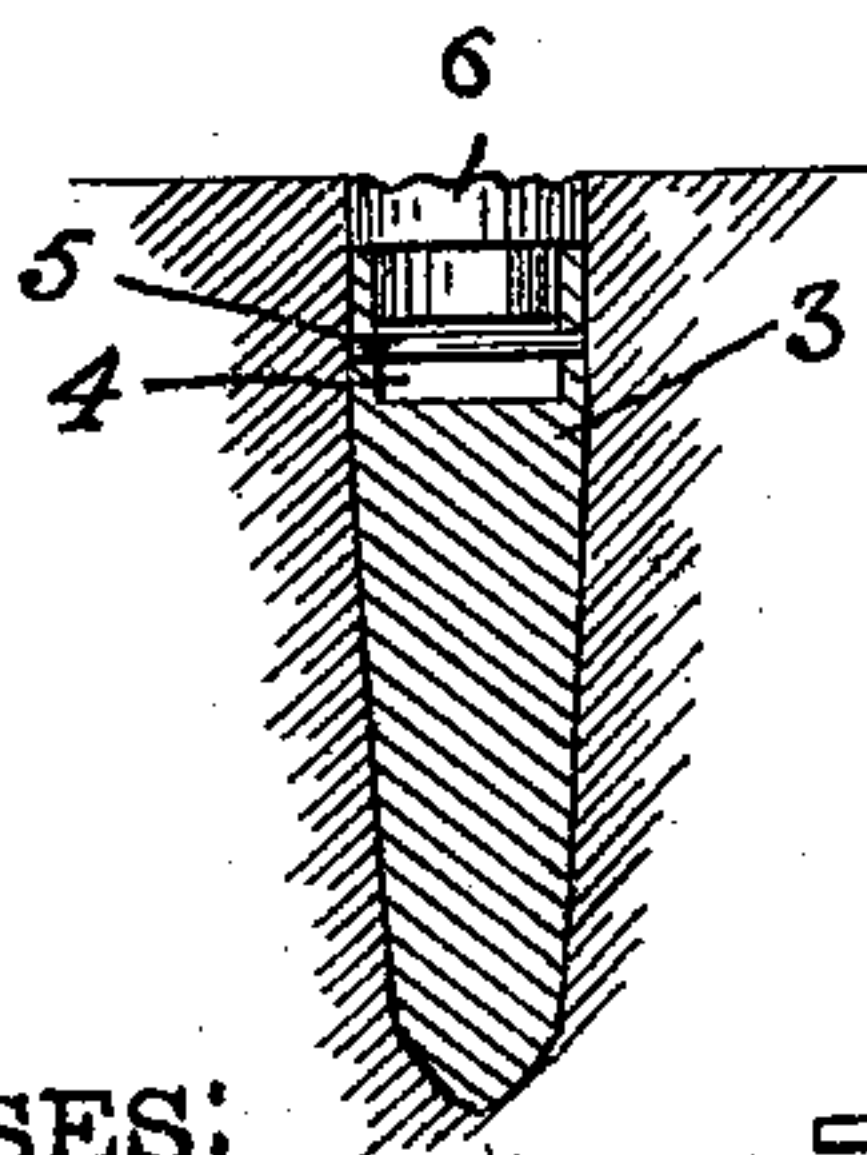
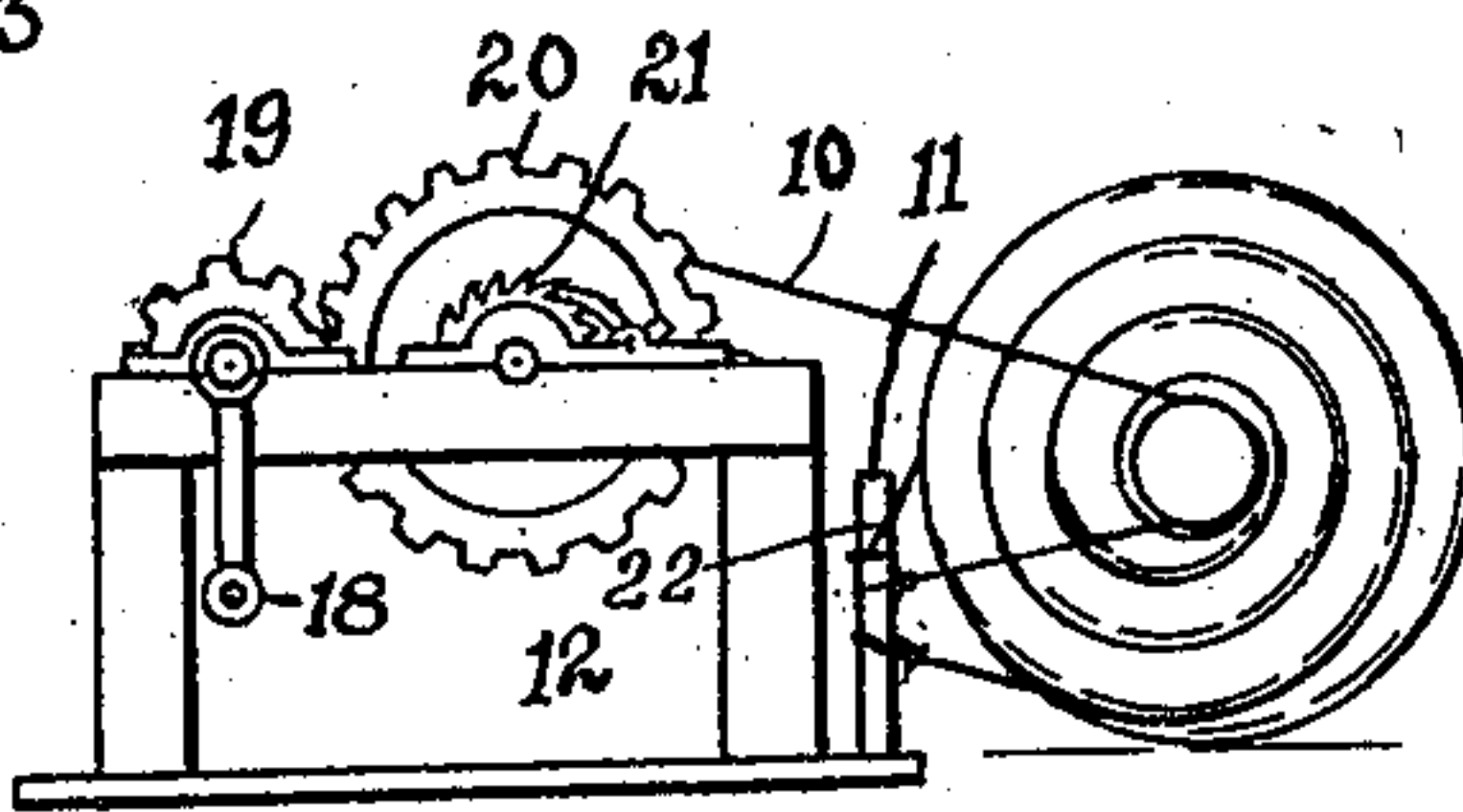


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRED C. CLARKE, OF WINFIELD, KANSAS, ASSIGNOR TO THE CLARKE COVER COMPANY,
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DIAMOND-COVER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRED C. CLARKE, a citizen of the United States, residing at Winfield, in the county of Cowley and State of Kansas, have invented new and useful
5 Improvements in Diamond-Covers, of which the following is a specification.

My invention relates to means for manipulating a cover for baseball grounds.

This cover is made of canvas or other suitable material for keeping the diamond and preferably a portion of the out-field dry in wet weather. For its manipulation guy ropes are provided for attachment to stakes suited for the purpose in order to hold the
10 canvas down over the grounds, and a special arrangement of ropes and winding devices is provided for rolling up and away from the diamond the canvas after it has been released from the stakes. Preferably before
15 rolling the canvas up, it is folded a certain number of times in order to be more readily handled by the devices for rolling it up, though of course this is not absolutely necessary. For handling during this folding, I
20 have provided a special arrangement of certain of the guy ropes. In addition to the above I have also provided a ready means for again unrolling the canvas upon the diamond in a proper position to be unfolded
25 to cover the ground to its full extent. All these means for manipulating the cover or canvas I have combined in an especially convenient and efficient manner. The structural features of the devices used and the particular arrangement of them with respect
30 to the canvas or cover will be more readily understood from the following description taken in connection with the accompanying drawings, and the particular features of novelty in my invention will be clearly pointed out in the annexed claims.

Referring to the drawings,—Figure 1 is a plan view of the canvas or cover and the
35 manipulating devices, the canvas being shown in its extended position where it covers the diamond and is secured in position by the guy ropes. Fig. 2 is a plan view showing the cover as it is being rolled up
40 after having been folded. Fig. 3 and Fig. 4 are detail views of the winch used to roll the cover up, and Fig. 5 is a sectional view showing one of the stakes to which the guy ropes are tied.

In dotted lines in Fig. 1 is shown a base-

ball diamond with the bases in the relative positions indicated, and this diamond is covered by a canvas 1. This canvas is in this case made of a sufficient size to cover certain portions of the out-field as shown. Guy
5 ropes 2 are attached at the four corners and at suitable intermediate points and extend to stakes 3 which are driven into the ground at points beyond the edge of the extended canvas. The stakes may be of any form, but
10 are preferably of the form shown in Fig. 5. The stake 3 in this figure is shown driven down into the ground until its upper end is substantially flush with the surface. This upper end is hollowed out, as at 4, and a
15 transverse pin hook, or bar 5 is provided for the attachment of the guy ropes 2. The rubber cap or cover 6 is provided for the top of the post, and the top of this cap or cover is roughened or corrugated in order to
20 prevent slipping of a person walking over it. When the canvas is taken up the covers 6 are used to cover the stakes and prevent any one tripping by stepping into the hole at the upper end of the stake. It will be
25 noted that the covers 6 fit with their upper sides flush with the surface of the ground, and that there is thus no danger of tripping over it.

Certain of the guy ropes 2 extend all the way across the cover as shown, and intermediate the ends some or all of them are provided with loops 7, the parts of the guy ropes intermediate the loops being sewed
30 or otherwise attached to the cover. These loops and guy ropes are on the under side of the canvas, and the loops serve as grips for the hand to be used in folding over the canvas as will be presently described.

The canvas thus described when extended and tied down as shown will prevent the
35 baseball ground from being wet in rainy weather. It is designed to be placed over the grounds whenever the weather is such that there is need for it. The arrangement
40 of guy ropes and hand loops renders its manipulation while on the ground very easy, but the large size of the canvas makes necessary some special means for its manipulation in getting it on and off of the grounds. In
45 order to accomplish this I have provided an arrangement of ropes or other devices connected to the canvas and operated by a winch or other suitable mechanism for handling
50 the ropes, whereby the canvas may be read-

ily rolled up and away from the field, or may be as readily rolled out upon the field. This means of manipulation as shown in Fig. 1 consists of a rolling device 8 attached to an apron or tab 9 fastened to one side of the cover 1 about its middle, and operating ropes 10 attached at one end to fixed posts 11, passing underneath the cover and over the rolling device 8, and back underneath the cover to the winch 12, being attached one to each of the drums 13. The rolling device 8 consists of a rod or pole attached to the tab and a friction pulley on each end of the pole. These friction pulleys are adapted to receive the bights of the ropes 10 and are preferably of small size in order to prevent rolling upon the ground for a distance greater than the length of the tab 9. The reason for this will appear presently. The winch 12 is located on the side of the canvas opposite the tab 9 and is preferably located on a side of the diamond adjacent the home plate. The rolling device 8 with tab 9 is always of course attached to the opposite side of the canvas. This location of the winch is particularly advantageous in that a grandstand or other structure provided with a roof is usually located on one or both sides of the diamond adjacent the home plate. The winch may, therefore, be housed beneath the stand where it is out of the way and has protection from the weather. The drums 13 on the winch are loose on the shaft 14 but are connected to it by ratchets and pawls 15 and 16 keyed to the shaft and to the drum respectively. This is shown in Fig. 3. On the periphery of the drums 13 are provided handles 17 for operation by hand. The main shaft 14 is operated by crank 18 through the medium of gears 19 and 20. The gear 20 carries a ratchet 21 coöperating with a pawl carried by the frame. This pawl and ratchet serve to hold the slack during the rolling up operation.

Attached to the canvas near the point the tab or apron 9 is attached, are two ropes 22 of a length equal to the width of the cover, or to the distance between the winch and the rolling device 8 in the extended position of the cover shown in Fig. 1. Also attached to the canvas are ropes 23 leading to stakes 11 where they are tied.

The rolling up operation will now be described. The cover is first folded by means of the guy ropes and loops 7 until it occupies a position between the ropes 10 as shown in Fig. 2. This folding is done along lines parallel to the ropes 10, and is done from both sides of the canvas, so that the canvas is evenly folded between the ropes 10. This folding is also preferably along the lines of the guy ropes which extend clear across the canvas and parallel to the ropes 10. By this means the folding may

be more easily accomplished as the loops 7 are available as grips. Besides this the ropes containing loops 7 serve as guides to indicate the proper points for the fold. The canvas thus folded between the ropes 10 is ready to be rolled up and off the diamond. To accomplish this the winch 12 is operated to wind up the ropes 10. The ropes 10 passing around the pulleys on the end of the rolling device 8 turn it winding up the apron 9 on the pole, and the apron 9 is followed by the canvas when the end of the apron is reached. Continuing the operation of the winch 12 rolls the canvas up as shown in Fig. 2 and from the diamond as shown in Fig. 4. The friction of the rope on the pulleys attached to the rolling device is the means of turning the rolling device and rolling the canvas up. The pulleys of the rolling device should not roll on the ground for the reason that the roll of canvas increases in diameter as it is being formed, and the progress of the roll across the diamond should be exactly commensurate with this increase in diameter in order that there be no slack and that the roll be as tight as possible. The rolling up operation is continued by turning the winch until the canvas is clear off the diamond when it may be lashed in place to the stakes 11. During this operation the ropes 22 have been rolled up with the canvas, and when it is again desired to spread the canvas the ends of these ropes 22 are caught by several men and the canvas is unrolled onto the diamond on the same path on which it was rolled up. The ropes 23 attached to the stakes 11 serve to stop the canvas at the proper point with respect to the diamond and prevent its being pulled out of place. The unrolled canvas may then be unfolded to its extended position shown in Fig. 1, and it may be secured in place by the guy ropes 2.

By using two ropes 22 properly spaced apart, the canvas is more evenly unrolled than is the case when one rope is used.

By a provision of the ratchet and pawl connection between drums 13 and shaft 14 I may take up any slack in one or both of the ropes 10 due to stretching. This is especially desirable when one rope stretches more than the other, or when for any reason one of the ropes becomes of less length than the other, for the rolling device 8 will not run true unless the ropes from the winch to the rolling device are of equal length. In other words, the rolling device 8 must be the true axis of the roll of canvas being formed and must be perpendicular to the ropes 10. The ratchet 21 is adapted to hold the ropes 10 taut as the canvas is being rolled up, this ratchet acting to prevent the reversing of shaft 14 during the rolling up operation. When it is desired to extend the

canvas of course this ratchet 21 is released by the moving of the pawl from the ratchet.

It will be seen that I have produced an exceedingly practical and convenient means for manipulating a cover of canvas of large size. While I have described this with particular reference to a baseball field, it is of course understood that I may cover ground or other surface other than a baseball field and use the same means for manipulating that cover.

I desire also to have it understood that while I have described the best form of manipulating means now known to me, many of the details can be readily changed by a skilful person without departing from the generic spirit of my invention, and I desire to cover all such changes or modifications in the claims annexed hereto.

As regards the rope for operating the rolling device of my invention, I may, of course, operate the rolling device by a rope running underneath the canvas of the rolling device and then back over the top of the canvas. In this case, of course, the rope running over the top of the canvas will simply have to be lifted by hand in order to pass the folded sides of the canvas underneath it and allow the folded canvas to rest between the operating ropes as is the case when the operating ropes pass entirely beneath the canvas.

What I claim is,—

1. In combination, a diamond cover, and means for removing the same from the diamond comprising a winch on one side of the cover, a rolling device on the other side of the cover of less extent than a side of the cover, and ropes running from the winch under the cover and to the rolling device.

2. In combination, a diamond cover which can be folded, a rolling device which rolls along adjacent the surface of the ground attached to said cover on one side, and ropes running under said cover from the opposite side to said rolling device for rolling the folded cover up and off the diamond.

3. In combination, a cover, a rolling device of less extent than a side of the cover on one side of said cover, a tab connecting said rolling device and cover, and ropes running from the side of said cover opposite said rolling device and under said cover to said rolling device for rolling the cover up.

4. In combination, a cover provided with guy ropes for tying down to stakes, certain of said guy ropes extending parallel to each other across the cover on its under side and being provided with loops, a rolling device connected to a side of the cover perpendicular to said parallel guy ropes, and ropes running from the opposite side of said canvas underneath said canvas to said rolling device and parallel to said guy ropes.

5. In combination, a cover for a base ball

diamond, parallel lines of hand-holes on said cover, a rolling device connected to a side of the cover perpendicular to said parallel lines of hand-holes, and ropes running from opposite sides of said cover to said rolling device and parallel to said lines of hand holes.

6. In combination, a cover adapted to extend over a diamond and a portion of the out-field, a rolling device connected to the cover on a side of the cover for the diamond adjacent the second base, and operating ropes passing under the cover on the opposite side and to said rolling device.

7. In combination, a cover adapted to extend over a diamond and a portion of the out-field, a rolling device connected to the cover on a side of the cover for the diamond adjacent the second base, operating ropes passing under the cover on the opposite side and to said rolling device, and a winch on said opposite side for hauling in said ropes.

8. In combination, a cover for a base ball diamond, means for removing the cover from the surface comprising a rolling device attached to one side of the cover and which rolls along adjacent the surface of the ground, and operating ropes running from the side of said cover opposite said rolling device to said rolling device for rolling the cover up, said devices being of less extent than a side of the cover and being positioned with respect to the cover to place said ropes beneath the cover when the same is extended, and independent means attached to said cover, whereby it may be unrolled to cover said surface.

9. In combination, a cover for a surface, and means for removing the cover from the surface comprising a winch, a rolling device connected to the cover, ropes running under the cover from the winch to the rolling device, and means on the winch for independently adjusting the length of each rope.

10. In combination, a cover for a surface, and means for removing the cover from the surface comprising a winch, a rolling device connected to the cover, ropes running under the cover from the winch to the rolling device, operating means for the winch, and means on the winch independent of the operating means for taking up slack in the ropes.

11. In combination a pair of ropes adapted to run across a surface, said ropes being spaced apart and connected at one end to a hauling device, a rolling device connected to the other end of said ropes, said rolling device being of less extent than that of a side of the surface, a cover for said surface, and a tab of less width than the rolling device connecting the cover and the rolling device.

12. Means for removing a cover from a base-ball diamond comprising a pair of

ropes spaced apart and adapted to extend from one side of the base-ball diamond to the opposite side, stakes opposite a side of said diamond adjoining the home plate, a
 5 hauling device opposite the same side of said diamond, one end of each of said ropes being tied to one of said stakes, and the other ends of said ropes being attached to said hauling device, and a rolling device for
 10 rolling up the cover associated with said ropes.

13. Means for removing a cover from a base-ball diamond comprising a pair of ropes spaced apart and adapted to extend
 15 from one side of the base-ball diamond to the opposite side, stakes opposite a side of said diamond adjoining the home plate, a hauling device opposite the same side of said diamond, one end of each of said ropes
 20 being tied to one of said stakes, and the other ends of said ropes being attached to said hauling device, and a rolling device for rolling up the cover associated with said ropes.

25 14. Means for removing a cover from a base-ball diamond comprising a pair of ropes spaced apart and adapted to extend from one side of the base-ball diamond to the opposite side, stakes opposite a side of
 30 said diamond adjoining the home plate, a hauling device located opposite the same side of said diamond with its axis parallel to the side of the diamond, one end of each of said ropes being tied to one of said stakes,
 35 and the other ends of said ropes being attached to said hauling device, and a rolling device for rolling up the cover associated with said ropes.

15. In combination, a rectangular cover
 40 adapted to cover a base ball diamond and a portion of its out-field, a hauling device located opposite the side of said diamond adjoining the home plate, ropes attached to said hauling device of a length adapting
 45 them to extend across said diamond to the opposite side and return, stakes to which the return ends of said ropes are attached, and a rolling device attached to said cover and resting in the bights of said ropes.

50 16. In combination, a cover for a surface and a rolling device for rolling up said

cover which is of less extent than a side of the cover, and a relatively narrow tab connecting said rolling device and said side of the cover.

17. A substantially rectangular cover for a base-ball diamond designed to be placed on said diamond with its respective sides always in the same position with respect to the respective sides of said diamond, and
 60 a rolling device attached to the side of said cover intended to lie opposite a side of the diamond adjacent second base.

18. A substantially rectangular cover for a base-ball diamond designed to be placed
 65 on said diamond with its respective sides always in the same position with respect to the respective sides of said diamond, a rolling device attached to the side of said cover intended to lie opposite a side of the
 70 diamond adjacent second base, and a hauling device associated with said rolling device and located opposite a side of said diamond opposite the said side adjoining the second base.

19. A substantially rectangular cover for a base-ball diamond designed to be placed on said diamond with its respective sides always in the same position with respect to the respective sides of said diamond, a roll-
 80 ing device attached to the side of said cover intended to lie opposite a side of the diamond adjacent second base, and an unrolling device connected to the opposite side of said cover.

20. A substantially rectangular cover for a base-ball diamond designed to be placed on said diamond with its respective sides always in the same position with respect to the respective sides of said diamond, a roll-
 90 ing device on the side of said cover adapted to lie opposite a side of the diamond adjoining the second base, and means connecting the cover to said rolling device.

In testimony whereof I have hereunto set
 my hand in presence of two subscribing wit-
 nesses.

FRED C. CLARKE.

Witnesses:

ALICE A. TRILL,
 L. BRANDT.