June 24, 1930. C. S. RIGHTS ET AL 1,766,455

PLANT PROTECTING DEVICE

Filed Jan. 4, 1929

Fig. 1.

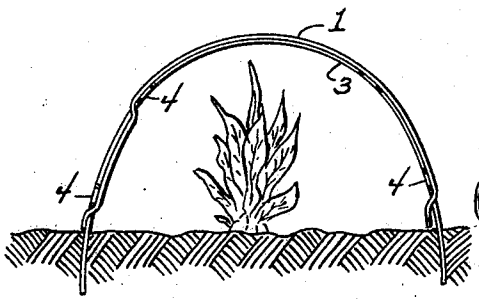


Fig. 2.

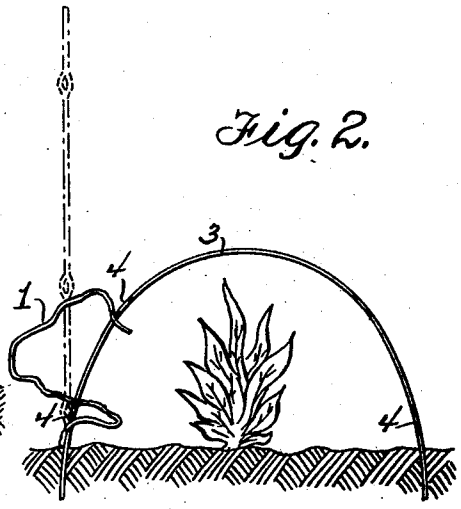
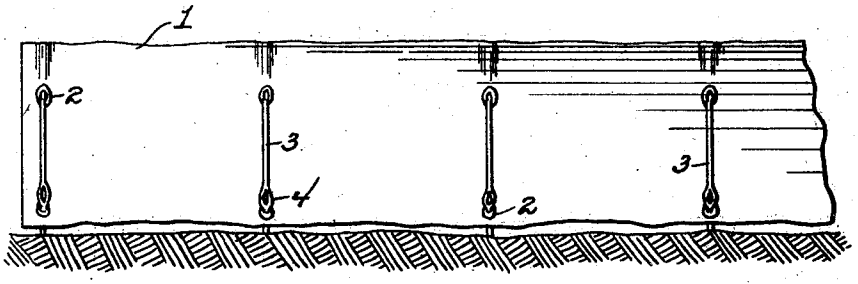


Fig. 3.



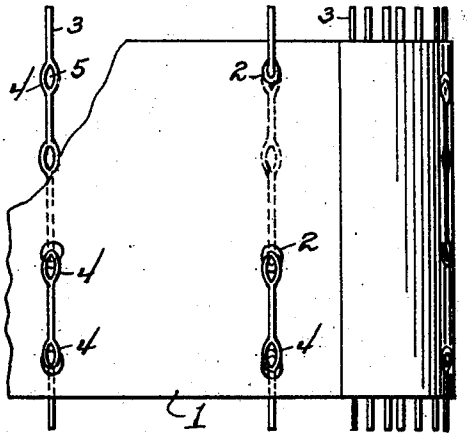


Fig. 4.

Fig. 5.

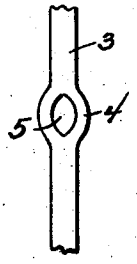
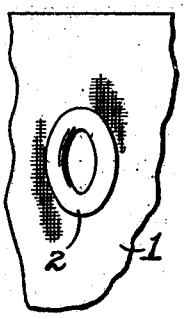


Fig. 6.



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UNITED STATES PATENT OFFICE

CYLDE S. RIGHTS AND ANNA O. RIGHTS, OF TAMPA FLORIDA

PLANT-PROTECTING DEVICE

Application filed January 4, 1929. Serial No. 330,207.

This invention relates to protective means for plants, the general object of the invention being to provide a plurality of flexible rods, with means for fastening thereto a flexible strip of paper, cloth or the like, whereby when the ends of the rods are forced into the earth, the rods will be held in bowed shape over the plants and the strip will cover the plants, thus protecting the plants from frost, wind and the like.

Another object of the invention is to provide means for so connecting the strip to the rods that the strip can be pushed to a position on the rods at one side of the plants so that the strip will protect the plants from wind and sand or dirt carried thereby, while permitting the sun to reach the plants.

A still further object of the invention is to so construct and arrange the parts that the strip and rods can be rolled into a compact bundle, thus occupying little space when stored or being shipped.

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 drawing and specifically pointed out in the appended claims.

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

Figure 1 is an end view, showing the invention in use.

Figure 2 is a similar view, but showing the strip arranged at one side of the row and also showing in dotted lines a rod in vertical position.

Figure 3 is a side view.

Figure 4 is a view showing the device partly lowered.

Figure 5 is a fragmentary detail view showing the enlarged perforated part of a rod.

Figure 6 is a fragmentary view showing the eyelet carrying part of the strip.

In these views, the numeral 1 indicates a strip or sheet of flexible material, such as paper, cloth or the like. This sheet is provided with a number of rows of eyelets 2, two of the rows being located adjacent the edges of the strip and the third row being arranged to one side of the center of the strip. The invention also includes a plurality of rods 3 of flexible material so that the rods can be bent into bowed shape and each rod is formed with four enlargements 4, each enlargement having an opening 5 passing therethrough. The enlargements are of such dimensions that they can pass through the eyelets when the rod is turned to a position where the width of the enlargements is parallel with the length of the eyelets, but when the rod is turned at right angles to this position, the enlargements can not pass through the eyelets, so that the enlargements act as holding means for the strip. The length of each rod is greater than the width of the strip so that the ends of the rods will project beyond the edges of the strip, as shown in Figure 4. The rods are formed of spring material so that they will naturally assume a straight position when their ends are free of the ground. This will enable the rods and strip to be rolled into a compact bundle, as shown in Figure 4, so that the device will occupy but little space when stored or when being shipped.

The strip is placed on the rods by turning the rods so that their enlargements will pass through the eyes and then one end of each rod is pressed into the dirt at one side of the row of plants, the enlargements facilitating the pressing of the rods into the ground, as they provide means for preventing the hand from slipping on the rods. Then the rods are bowed and their other ends pressed into the dirt on the opposite side of the row of plants so that the device forms an arch over the row, as shown in Figures 1, 2 and 3. The strip will therefore act to protect the plants from frost, wind and the like. It will be seen that the enlargements adjacent the ends of the rods engaging the eyelets adjacent the edges of the strip will hold the edges of the strip on the ground and prevent the wind from moving the strip on the rods. The enlargements

and eyelets act as locking means for fastening the strip to the rods.

When the plants are to be uncovered, one end of each rod is pulled from the ground and the rod turned so that the eyelets in the strip can pass over the enlargements and the strip is pushed to one side of the row of plants, as shown in Figure 2, so that the strip in this position, when placed on the windward side, will protect the plants from wind and sand and dirt carried by the wind. Of course, after the strip has been moved to this position at one side of the row, the other ends of the rods are pressed into the dirt, as shown in Figure 2. The openings formed by the eyelets also act as ventilating means for permitting air to reach the plants while they are covered by the strip.

When it is desired to close the ends of the device, the end portions of the strip can be folded down over the ends of the device and held in this position by any suitable means. By pushing the strip to the upper portions of the bowed rods, the strip will act to prevent the direct rays of the sun from reaching the plants, while permitting light and air to reach the plants through the open sides.

It will be seen that the device can be adjusted to plants of different sizes by placing their ends in the soil close to or far from the plants.

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

It is to be understood that changes may be made 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 we claim is:—

1. A protective device for plants comprising a plurality of normally straight rods of spring material and a flexible strip adjustably attached to the rods whereby the rods can be bowed over the plants with the ends penetrating the ground, with the strip covering the plants or the rods can be placed in vertical position with one end of each rod penetrating the ground, with the strip adjusted on the rods at one side of the plants to act as a wind break.

2. A protective device for plants comprising a plurality of normally straight rods of flexible material, each rod having a number of enlargements thereon, a flexible strip having a number of rows of eyelets therein for receiving the rods, the enlargements and eyelets being of such dimensions that the enlargements can pass through the eyelets when the rod is turned to a certain position, but said enlargements engaging the walls of the eyelets when the rod is in another position, said rods being bent into bowed shape over the plants, with their ends penetrating the ground.

3. A protective device for plants comprising a plurality of normally straight rods of flexible material, each rod having a number of enlargements thereon, a flexible strip having a number of rows of eyelets therein for receiving the rods, the enlargements and eyelets being of such dimensions that the enlargements can pass through the eyelets when the rod is turned to a certain position, but said enlargements engaging the walls of the eyelets when the rod is in another position, said rods being bent into bowed shape over the plants, with their ends penetrating the ground, the device being adjustable to different sizes of plants by placing the ends of the rods in the ground close to or a distance from the plants.

4. A protective device for plants comprising a plurality of normally straight rods formed of flexible material, each rod having a plurality of enlargements thereon, a flexible strip of less width than the length of the rods, said strip having a plurality of rows of eyelets therein through which the rods pass, said eyelets being of greater length than the width of the enlargements and of less width than the width of the enlargements whereby the enlargements can pass through the eyelets when the rod is turned to a certain position and the enlargements will be prevented from passing through the eyelets when the rod is in another position, said rods being bent into bowed shape over the plants with their ends penetrating the ground, with the strip in either a position extending over the rods to cover the plants or in a position on the rods at the windward side of the plants to protect the plants from sand laden wind.

In testimony whereof we affix our signatures.

CLYDE S. RIGHTS.
ANNA O. RIGHTS.