Feb. 12, 1929. 1,701,797

W. R. SCHINDLER

HOT CAP

Filed Feb. 16, 1926

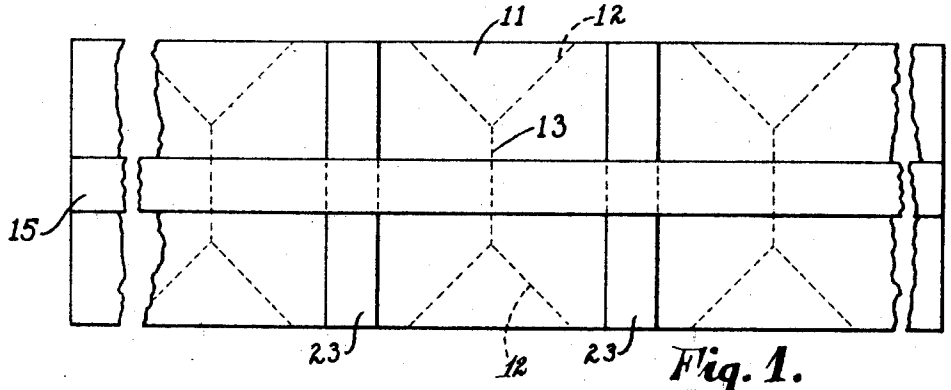


Fig. 1.

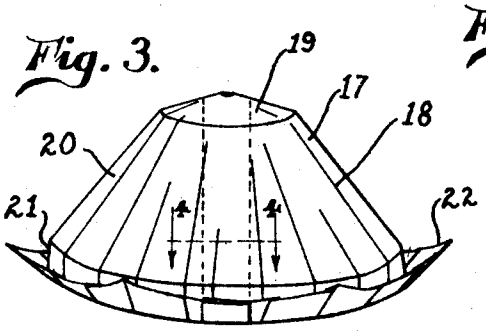


Fig. 3.

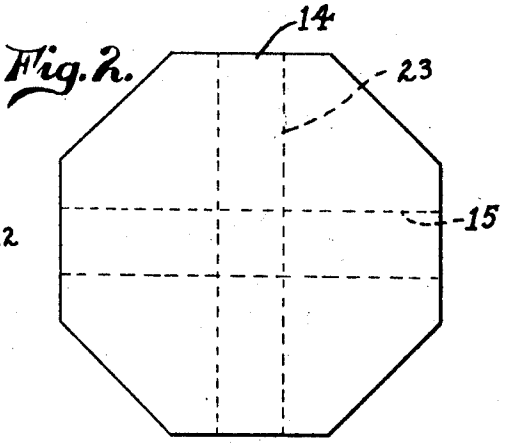


Fig. 2.

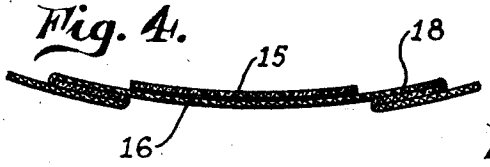


Fig. 4.

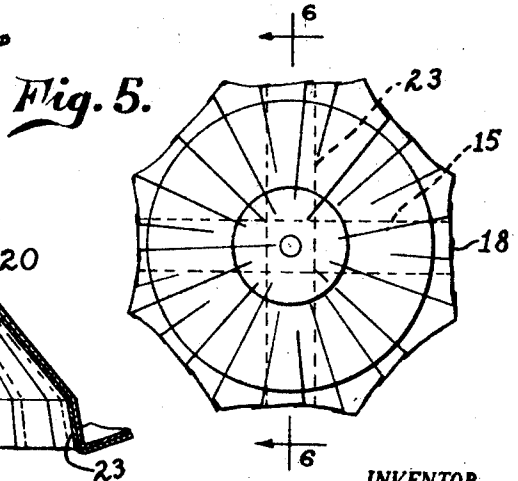


Fig. 5.

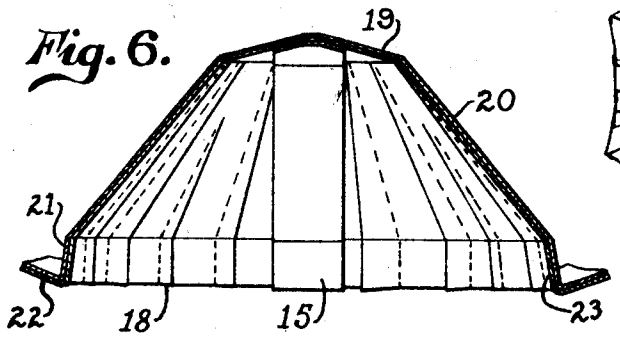


Fig. 6.

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Patented Feb. 12, 1929. 1,701,797

UNITED STATES PATENT OFFICE.

WALTER R. SCHINDLER, OF LOS ANGELES, CALIFORNIA.

HOT CAP.

Application filed February 16, 1926. Serial No. 88,536.

This invention relates to hot caps, a type of cover employed to shelter young plants against frost and to effect warming of the earth adjacent to the seed so as to hasten sprouting thereof and growth of the plants.

This invention is an improvement over the construction disclosed in Patent No. 1,340,631, granted to me May 18, 1920, and an object of this invention is to guard against collapse of the larger sizes of caps.

Another object of the present invention is to effect stiffening of the cap by providing a stiffening strip extending diametrically of the body of the cap.

Another object is to secure the stiffening strip in place by the wax that is employed in the waterproofing of the cap and to position the stiffening strip so that it will be protected against dampness, such as may be caused by rain, fog and dew.

Another object is to cut the blank strip, for making a plurality of hot caps, in a manner to expedite the manufacture of the caps.

Further objects and advantages will appear in the subjoined detailed description.

The accompanying drawings illustrate the invention:

Figure 1 is a broken plan view of a blank strip from which a plurality of hot caps, embodying the invention, are cut, the lines on which the blank is severed being indicated by dotted lines and the stiffening strips being shown in place.

Figure 2 is an enlarged plan view of one of the blanks from which the cap is formed after it is cut from the blank strips, said blank being shown inverted from the position shown in Fig. 1.

Figure 3 is a side elevation of a hot cap constructed in accordance with the provisions of this invention from the blank shown in Fig. 2.

Figure 4 is an enlarged plan section on the line indicated by 4—4, Fig. 3.

Figure 5 is a plan view of Fig. 3.

Figure 6 is an enlarged sectional elevation on the line indicated by 6—6, Fig. 5.

A typical blank strip from which the cap blanks are cut is indicated at 11 and the cap blanks are cut from the strip by severing on the lines indicated at 12, 13 in Fig. 1. One of the blanks cut from the strip 11 is shown at 14 in Fig. 2.

The strip 11 is preferably constructed of waterproof paper. This result may be secured by oiling or waxing suitable paper. Before the blanks are cut from the strip 11 a stiffening strip 15 of paper is placed centrally of the strip, extending from end to end of the strip 11, as clearly shown in Fig. 1. The strip 15 may be made of the same material as the strip 11, if desired and it is secured in place by a suitable adhesive. The strip 15 may be waterproofed or not, as desired. I prefer to employ a waterproofing adhesive such, for example, as paraffin wax, indicated at 16.

After the strip 15 is applied to the strip 11, the blanks 14 will be cut from the strip. The lines 12, 13, for severing the strip are arranged so that the edges caused by cutting along said lines, together with the longitudinal edges of the strip, produce octagon-shape blanks. After the blanks have been cut from the strip 11 each will be molded or shaped to form a hollow body 17. The molding may be accomplished by using appropriately constructed dies, in the manner well understood in this art. When the blank 14 is being operated on by the dies to shape it, it is preferably positioned in the dies in a manner to cause the stiffening strip 15 to lie on the inside of the cap. When the blank is operated on by the dies, said dies produce radially extending plaits or folds 18 so as to effect a gradual contraction or reduction of the body 17 from top to bottom and, in this instance, the dies will be constructed to form the body 17 into a cone-shaped top section 19, a frusto-conical intermediate section 20 and a lower frusto-conical section 21. The top section 19 is relatively short and the intermediate section is considerably longer and converges at a relatively great angle upwardly to its line of junction with the top section. The lower section is slightly tapered and converges upwardly to its line of junction with the intermediate section.

Extending outwardly from the lower section 21 is a flanged rim 22 which, when the cap is in place on the ground, is embedded in the earth so as to properly anchor the cap and prevent it from blowing away. A device for embedding the flanged rim is disclosed in Patent No. 1,357,523, granted to me November 2, 1920.

It may be advisable to provide a second stiffening strip 23 extending transversely of the strip 15, especially if the caps are of extremely large size, and such additional stiffening strips 23 may be secured to the

blank strip 11 by the same means and in the same manner as the stiffening strip 15. It is to be understood that either one or both of the stiffening strips 15, 23 may be employed.

The cone-shaped top section 19 and the slanting side sections 20, 21 provide a substantial and stiff structure which is further strengthened by the folds 18. Additional stiffness is produced by the strip 15 and, when desired, a still further degree of stiffening is produced by the transverse strip 23.

To use the cap described above, it is placed over a plant or seed with the flanged rim embedded in the earth. The sun's rays are readily absorbed by the cap so as to heat the air beneath the cap, thus in turn heating the earth beneath the cap. This results in rapid sprouting of the seed and growth of the plant and the plant will be protected from the direct rays of the sun and also from frost and freezing winds and against those flying insects which are injurious to young plants.

I claim:

1. A hot cap comprising a hollow body pressed from an octagonal paper blank into shape to provide a cone-shaped top section and a frusto-conical section below the top section and a flanged rim projecting outwardly from the frusto-conical section, and a paper stiffening strip secured to the sections and flanged rim.

2. A hot cap comprising a hollow body pressed from a single piece of paper and provided with a top section and with another section below the top section and with an out-turned flanged rim, and a paper stiffening strip of materially less width than the body secured to the flanged rim and to the sections to aid in supporting said sections.

3. A hot cap comprising a hollow body pressed from a single piece of paper and having a cone-shaped top section and a frusto-conical section below the top section and a flanged rim, and a stiffening strip of paper secured to the sections and to the flanged rim to aid in supporting the top.

4. A hot cap comprising a hollow body pressed from a single piece of paper and having a cone-shaped top section and a frusto-conical section below the top section and a flanged rim, and a stiffening strip of paper secured with a wax to the inner surface of the sections and to the flanged rim to aid in supporting the top.

Signed at Los Angeles, California, this 8 day of February, 1926.

WALTER R. SCHINDLER.