May 12, 1953 W. J. WATERMANN 2,637,850

ADJUSTABLE FINGER COT OR PROTECTOR

Filed June 15, 1951

Fig. 1.

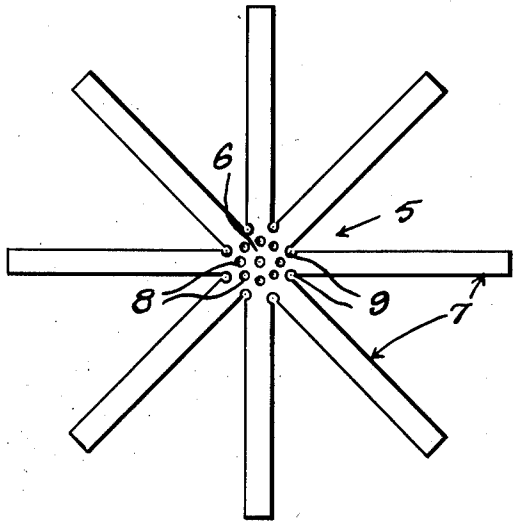



Fig. 4.

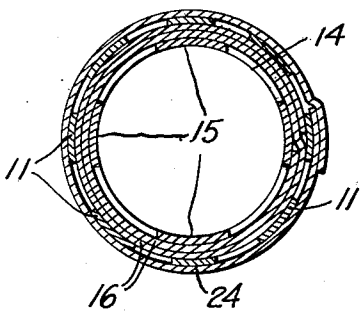
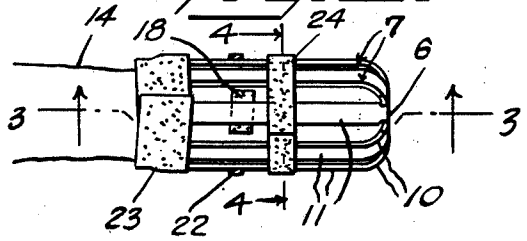



Fig. 2.



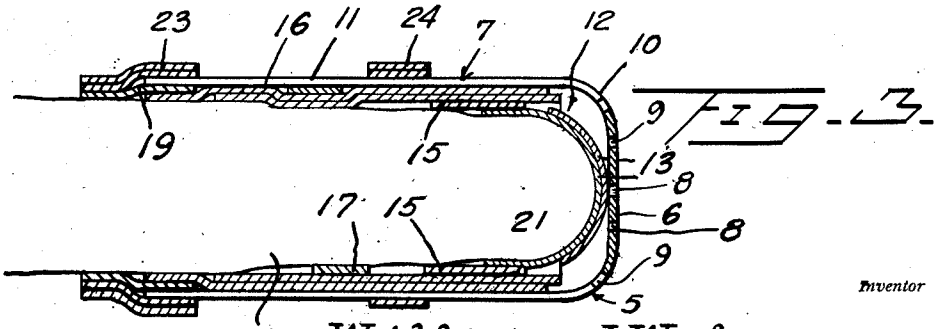




Fig. 3.

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## ADJUSTABLE FINGER COT OR PROTECTOR

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1 Claim. (Cl. 2—21)

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This invention relates to a novel protector or cot adapted to be applied to an injured finger over a bandage or dressing to protect the finger from being reinjured while in the healing stage, and which is sufficiently rigid to provide a shield to prevent the finger from being stubbed, pinched or otherwise again injured.

Another object of the invention is to provide a finger cot or protector which is particularly adapted to protect injuries to the tip of a finger during the healing period and to thus permit a person, wearing the protector, to safely perform his work while the injury is healing without risk of reinjuring the injured finger.

Still a further object of the invention is to provide a finger cot or protector which is adjustable to fit fingers of different sizes and which will afford adequate ventilation to the injury to promote rapid healing.

Still another object of the invention is to provide the cot or protector of an extremely simple construction which may be very economically manufactured and sold so that, if desired, it may be discarded after use, and which is so constructed that it may be readily secured immovably to the finger at a point spaced from the injury so that it will not contact the injury but will be rigidly retained in spaced relationship thereto to afford an adequate shield for the injury.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a plan view of the cot or protector shown in an extended position and before being shaped for application to an injured finger;

Figure 2 is a side elevational view showing the cot or protector after being shaped and as it will appear in an applied position;

Figure 3 is an enlarged longitudinal sectional view thereof taken substantially along a plane as indicated by the line 3—3 of Figure 2; and

Figure 4 is an enlarged cross sectional view thereof taken substantially along a plane as indicated by the line 4—4 of Figure 2.

Referring more specifically to the drawing, a cot or protector, designated generally 5 and comprising the invention, is formed from a single blank, preferably of a malleable metal such as tin, aluminum or stainless steel, which is relatively thin so that it can be bent and shaped, as hereinafter explained. The blank 5 is substantially spider-shaped including a central hub 6

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having a plurality of strips 7 forming arms which radiate therefrom and which are equally spaced from one another, circumferentially of the hub. The protector 5 preferably includes eight arms 7, as illustrated in Figure 1. The hub 6 is provided with a plurality of ventilating apertures 8 and is preferably provided with arcuate notches 9 in the crotches formed by the adjacent longitudinal edges of adjacently disposed arms 7.

While the protector 5 may be made in different sizes for most conveniently accommodating it to fingers of adults and children, as the description proceeds it will become readily apparent that the protector may be shaped to fit fingers of different sizes and a protector of any given size may be used for the finger of an adult or child. For example, one size of the protector for adults may be of approximately four inches in diameter having a hub 6 which is ⅝ of an inch in diameter or the protector may be made smaller for children with an overall diameter of three and one-half inches and a hub diameter of $\frac{9}{16}$ of an inch. A suitable form, not shown, may be provided for shaping the protector 5 to the size of an injured finger, or an end of a broom handle or similar object of circular cross section will afford an adequate form for this purpose. Likewise, the protector may be shaped over another uninjured finger as a form so that each of the arms 7 will then include an arcuately curved portion 10 extending from and disposed adjacent the hub 6 and a relatively long substantially straight portion 11 extending from the outer end of the arcuately curved portion 10 and which is disposed substantially at a right angle to the plane of the hub 6.

The protector or cot 5 thus shaped, as illustrated in Figures 2, 3 and 4, is adapted to be applied over a dressing or bandage, as illustrated in Figures 3 and 4 and designated generally 12 and which may be applied in any suitable manner deemed advisable by the attending physician. For example, two strips of gauze dressing 13 may be applied crosswise over the tip of a finger 14 where the injury is to the tip of the finger and each of said strips may be provided at each end thereof with a strip of adhesive tape 15 which is secured to the outer side of the dressing strip 13 and a portion of which extends beyond the end thereof so that the exposed end of each adhesive strip 15 may be secured to the finger, as best illustrated in Figures 3 and 4. A gauze bandage 16 is then wrapped a number of times around the finger from adjacent the tip and which is of a length to extend inwardly to adja-

cent a joint of a finger, said bandage preferably having a strip of tape 17 secured to and extending beyond its inner end and which is adhesively secured to the finger, as seen in Figure 3, and a strip of adhesive tape 18 which is secured to and projects beyond its outer end and which is secured to another portion of the gauze bandage 16, as illustrated in Figure 2, to retain its ends in applied position. A strip of adhesive tape 19 is wrapped at least once around the end of the bandage 16 disposed remote to the finger tip and with one longitudinal half of the tape 19 engaging over the bandage 16 and the other half directly engaging the skin of the finger, as illustrated in Figure 3.

The shaped finger cot or protector 5 is then applied over the dressing 12, as illustrated in Figures 2 and 3 and with the terminals of the arms 11 thereof engaging on the portion of the tape 19 which is secured to the bandage 16, as illustrated in Figure 3, said bandage being of a proper length to accommodate this location of the arms 7, and the shaped cot 5 being of a proper length so that when thus applied over the dressing 11, the hub 6 will be spaced from the injured finger tip 21 a distance of preferably about ⅛ of an inch. The finger cot 5 is adjustably held temporarily in this adjusted applied position as by means of a rubber band 22 which engages snugly around the arm portions 11 a distance from their terminals or a cord may be tied around said arm portions in lieu of the rubber band 22. A strip of tape 23 is then adhesively secured over the terminals of the arm portions 11 with the outer longitudinal half thereof adhesively secured around the outer longitudinal half of the tape 19 which is secured to the skin of the finger 14. The finger cot or protector 5 when thus applied is effectively anchored against slippage or displacement in any direction relatively to the finger and its hub portion 6 is retained spaced from the finger tip 21 so that a blow against the cot 5 will not be imparted to the injury. The perforations 8 and the spaces between the arcuate arm portions 10 afford adequate circulation of air to the injured



area of the finger to promote rapid healing. The crotch notches 9 provide rounded edge portions which will effectively prevent portions of the dressing 12 from becoming wedged between the arms 7.

After application of the adhesive strip 23, the band or cord 22 can be removed and if desired an additional strip of adhesive tape 24 can be wound about the arm portions 11 intermediate of the ends of the cot 5. Obviously, the length of the arms 7 may be varied as desired so that the protector 5 may be disposed outwardly of the second joint of the finger to permit bending of the finger at the second joint.

Various modifications and changes are contemplated and may obviously be resorted to, without departing from the spirit or scope of the invention hereinafter defined by the appended claim.

I claim as my invention:

A finger cot or protector formed from a single blank of malleable material comprising a hub and a plurality of strips radiating from said central hub and being separated at the hub by arcuate notches formed in the strips and hub and between adjacent strips, said strips being correspondingly curved at points radially spaced from the hub and having substantially straight outer portions disposed in planes substantially at right angles to the plane of the hub, said outer portions being uniformly spaced circumferentially relatively to one another throughout their lengths when disposed to form a slotted sleeve or cylinder with each of said outer portions equally spaced from the axis of the sleeve or cylinder throughout the lengths of said outer portions.

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