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TRAVELER WITH INSERT HAVING TAPERED END FOR DISPENSING ACCUMULATED FIBERS OR LINT

Filed Sept. 5, 1963

FIG. 1.

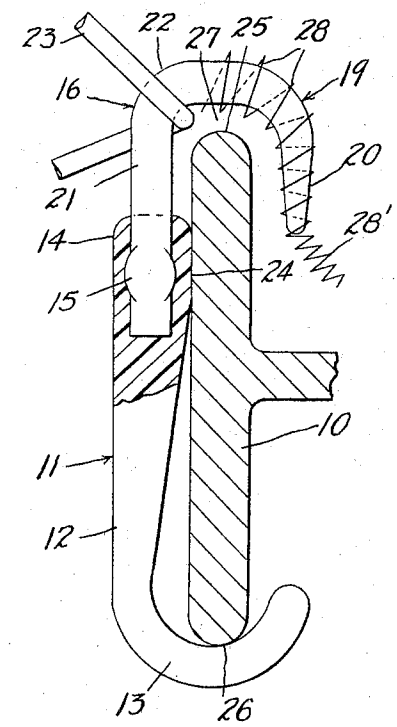


FIG. 2.

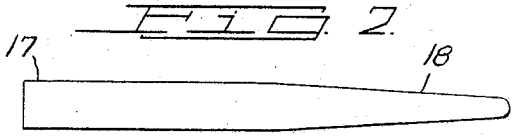


FIG. 3.

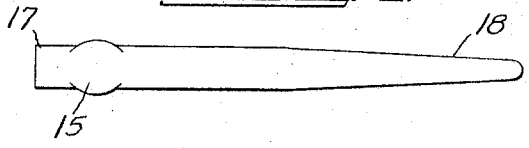
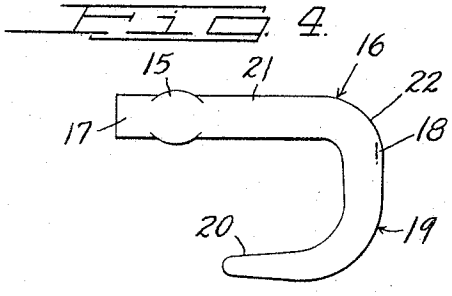


FIG. 4.



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TRAVELER WITH INSERT HAVING TAPERED END FOR DISPENSING ACCUMULATED FIBERS OR LINT

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4 Claims. (Cl. 57—125)

This invention relates to travelers employing an insert anchored and keyed in a molded traveler body, wherein the insert includes a U-shaped tapered hook end for dispensing thread fibers or lint in maintaining the traveler free of such fibers or lint during operation thereof.

The novel features of the invention will be best understood from the following description, when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed and, in which, the separate parts are designated by suitable reference characters in each of the views and, in which:

FIG. 1 is a sectional view through part of a traveler ring, diagrammatically illustrating a side elevation and partial section of a traveler made according to my invention and the dispensing of fibers or lint from the tapered hook-shaped end of the traveler insert.

FIG. 2 is a side view of a partially formed insert blank.

FIG. 3 is a view, similar to FIG. 2, showing the formation of the flat key portion on the insert; and

FIG. 4 illustrates the formation of the insert to provide the hook-shaped tapered fibers or lint dispensing end thereon.

Considering FIG. 1 of the drawing, at **10** I have shown in partial section a traveler ring, upon which a traveler **11** is movably mounted. The traveler comprises a molded plastic body **12**, having a curved ring engaging end **13**. The other end portion **14** of the body **11** is enlarged and is molded around a flattened key end portion **15** of an insert **16**. The key end portion **15** serves to retain the insert **16** against rotary and longitudinal displacement from the body **11**.

Considering FIGS. 2, 3 and 4, in these figures, I have shown at least part of the steps in forming the insert **16**. In FIG. 2 is illustrated the first formation of a rod blank **17** to provide by swaging, grinding or other method of procedure a long tapered end portion **18** on the rod-like blank **17**, which has been previously cut to a predetermined length.

Now considering FIG. 3, after the taper **18** has been formed, the blank **17** is then fashioned to form the flat key portion **15**, as previously described, after which, the tapered end **18** is fashioned in the manner illustrated in FIG. 4 to form a substantially U-shaped hook with tapered end **19** on the insert **16**. In other words, the portion **20** of **19** is disposed substantially in parallel relationship to the shank **21** of the insert, where it extends from the body **12**, as clearly illustrated in FIG. 1 of the drawing. In carrying out my method, the insert product, as shown in FIG. 4, is then hardened.

The hook end **19** joins the shank **21** in a rounded portion **22**, in connection with which the thread **23** operates, as diagrammatically illustrated in FIG. 1 of the drawing in the use of the traveler. The end portion **14** of the body **12** has a flat surface **24** which bears against the surface of the ring **10**, as diagrammatically seen in FIG. 1, in support of the insert substantially in the position illustrated in FIG. 1 with the shank **21** and hook-shaped

end **19** spaced with respect to the end **25** of the ring; whereas, the end **26** of the ring is in bearing engagement with the hook end **13** of the body **12**. This construction provides a distinct gap **27** between **19** and the end **25**, which permits free displacement of thread fibers or lint **28** onto the tapered hook **19** and for discharge from the contracted end of the hook **19**, as diagrammatically illustrated at **28'** in FIG. 1. The illustration of the fibers or lint **28** is purely diagrammatic in FIG. 1 of the drawing.

In the use of travelers, lint and fibers have a tendency to collect around the upper hook end of the traveler and one of the principal features of the present traveler construction is to so construct the hook end as to facilitate removal or dispensing of the fibers and lint and this dispensing is aided by centrifugal force.

It will be understood that the present disclosure illustrates one adaptation and use of my invention and, in this adaptation, the tapered hook fibers or lint dispensing end is formed as an insert and is formed from a metallic round rod, which could be tool steel and, after the shaping operations have been performed, as noted in FIG. 4, the resulting insert can be hardened to provide long use. Further, the molded plastic body can be formed of nylon or similar long wearing plastics.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A traveler for use in connection with a traveler ring, the traveler having a plastic curved ring engaging end, the other end of the traveler having a substantially U-shaped continuously tapered hook end of circular cross section adapted to be spaced with respect to the traveler ring to form a gap, the continuously tapered portion of the hook end of the traveler joining a shank portion of the traveler in a rounded thread engaging portion, and said continuously tapered portion of the hook end facilitating dispensing of thread fibers or lint from the traveler in the use thereof.

2. A traveler as defined in claim **1**, wherein the hook end portion of the traveler is made entirely of metal and constitutes part of an insert, said insert having a key end portion, and the traveler includes in combination with the curved end thereof an enlarged plastic body portion enveloping the key end portion of said insert.

3. A traveler of the character described comprising a molded plastic body having a curved end portion and an enlarged end portion, an insert comprising a shank arranged in said enlarged end portion, the shank including key means retaining the insert against movement and displacement from the plastic body, said insert having a U-shaped hook end of circular cross section, the major portion of which comprises a continuous taper, the continuous taper of said hook end facilitating displacement of thread fibers and lint in the use of the traveler, and said hook end joining the shank of the insert in a rounded thread engaging portion.

4. In a traveler for use in connection with a traveler ring, a shank portion, a curved ring engaging portion on one end of said shank portion, a substantially U-shaped hook portion on the opposite end of said shank portion spaced with respect to the traveler ring to form a gap when said traveler is in operation, a tapered end portion on said hook portion having a circular cross section throughout its length and tapering from a minimum diameter at the free end of said hook portion to a maximum diameter intermediate the ends of said hook portion, and

said tapered portion of said hook portion facilitating dispensing of the thread fibers or lint from the traveler in the use thereof.

References Cited by the Examiner

UNITED STATES PATENTS

1,788,052	1/1931	Gilligan	57—125 XR
1,834,874	12/1931	Schaaff	57—125 XR
1,984,779	12/1934	Wentworth	57—125
2,035,973	3/1936	McLeod	57—125
3,055,166	9/1962	Morin	57—125

FOREIGN PATENTS

3,796	1903	Great Britain.

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