Nov. 15, 1927. 1,649,654

H. R. BENSON

TOWLINE

Filed Jan. 24, 1927

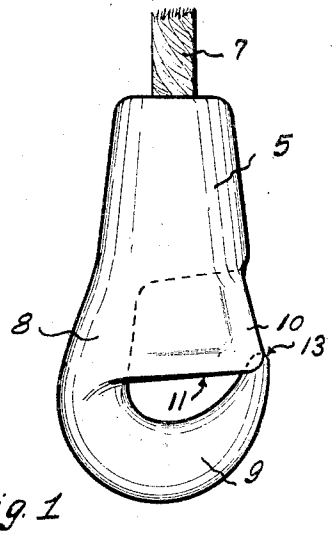


Fig. 1

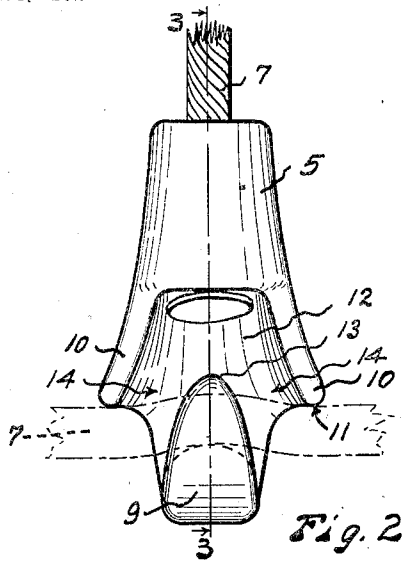


Fig. 2

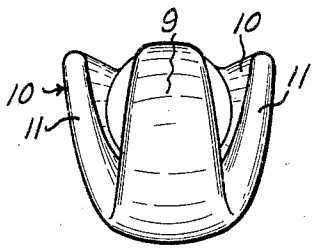


Fig. 4

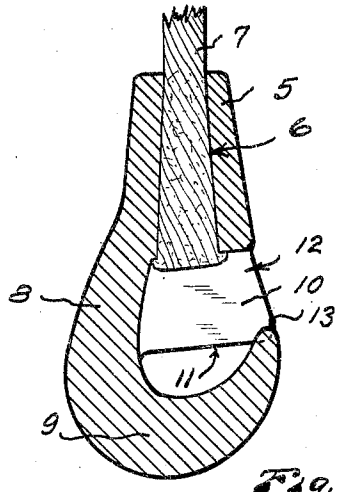


Fig. 3

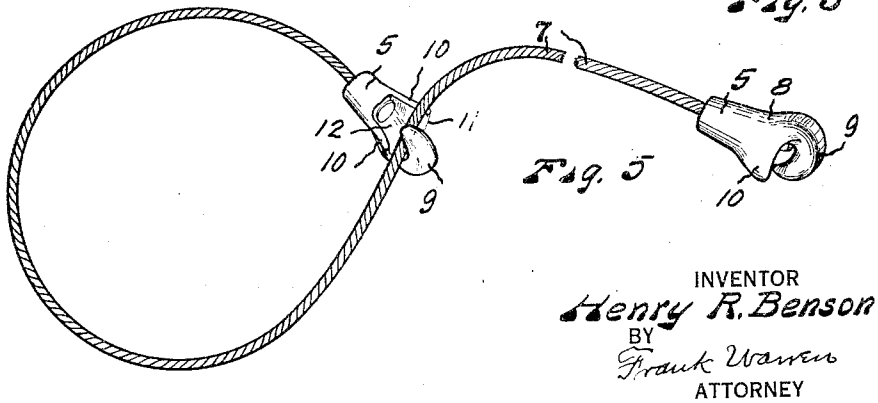


Fig. 5

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UNITED STATES PATENT OFFICE.

HENRY R. BENSON, OF SEATTLE, WASHINGTON, ASSIGNOR TO STANDARD SAFETY APPLIANCE COMPANY, OF EVERETT, WASHINGTON.

TOWLINE.

Application filed January 24, 1927. Serial No. 163,147.

My invention relates to improvements in tow lines and hooks therefor and the object of my invention is to provide a one piece hook of simple and efficient construction that is adapted to be secured to the end of a tow line or cable and is arranged to receive and hold the cable without danger of accidentally becoming unhooked and without danger of cutting or otherwise injuring the tow line.

A further object is to provide a hook of this nature which is an improvement of the hook disclosed in my prior Patent No. 1,446,781 issued February 27, 1923 and that is especially well adapted for use on a metallic or wire cable tow line of the form commonly used for towing motor vehicles, one of the hooks being secured to each end of the tow line.

A further object is to provide a tow line hook of this nature that will not catch on obstructions and that is easily engaged with and disengaged from the tow line manually but that will not accidentally release or slide on said tow line after it has been engaged therewith.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawings.

In the drawings, Figure 1 is a side elevation of a hook constructed in accordance with my invention.

Fig. 2 is a front elevation of the same.

Fig. 3 is a longitudinal section on broken line 3—3 of Fig. 2.

Fig. 4 is an end elevation of the hook.

Fig. 5 is a perspective view showing the manner of engaging the tow line within the hook and showing a hook on each end of the tow line.

Referring to the drawings, throughout which like reference numerals designate like parts, 5 designates a tubular eye portion having a hole 6 arranged longitudinally of the hook for the reception of the end of a cable 7, preferably of twisted wire. The eye portion 5 is connected by a relatively broad shank 8 with curved hook element 9. Two guard wings 10 extend forwardly from opposite sides of the shank 8 in slightly flaring spaced apart relation, said guard wings affording shoulders 11 on the side adjacent the hook that extend at substantially right angles to the axis of the hook. The guard wings 10 form between them an arcuate recess 12 and the point 13 of the hook is directed into this recess in substantially the medial plane of the hook and midway between the two guard wings. Sufficient clearance space as indicated at 14, is left between each guard wing, 10 and the adjacent side of the hook to permit the tow line 7 to be inserted therebetween. One of the hooks is preferably provided on each end of the tow line 7 as shown in Fig. 5.

When the tow line is to be used, one end of the same is drawn around an object to which it is to be secured and the tow line is engaged within the hook by inserting said tow line first between one guard wing 10, and the hook and then drawing said tow line under the point of the hook and between the other guard wing and the other side of the hook. Drawing the tow line between the last guard wing and the side of the hook will necessitate bending the tow line slightly. If desired, the tow line may be placed as shown in Fig. 5 and the last part of the engaging operation completed when the tow line is drawn taut. When the tow line is thus engaged within the hook the shoulders 11 make it substantially impossible for said tow line to become accidentally disengaged in case of slackness but the line may be easily and quickly disengaged from the hook by hand and without the use of any tools.

The point of the hook is inside of the plane of the outer, or forward, edges of the guard wings 10 so that the hook can not catch when it is dragged over objects or objects are dragged over the hook and the only way that the tow line can be inserted into the hook is by inserting the line first at one side of the hook then drawing the same under the point of the hook and between the hook and the guard wing at the other side.

The relative positions of the shoulders 11 and inside of the hook element 9 are preferably such as to cause the tow line to be bent slightly when it is drawn therethrough as shown by broken lines in Fig. 2, in which position the hook element is held in a fixed position when a strain is exerted on said cable or when the cable is slackened. This feature makes it possible to make a short or long tow line as desired.

The hook element 9 is rounded so that the

tow line will not be subjected to sharp bends when it is drawn thereover.

The hook is of one piece integral construction, free from moving parts, rendering said hook cheap to manufacture, easy to manipulate, efficient in operation and very durable.

The foregoing description and accompanying drawings disclose a preferred embodiment of the invention but it will be understood that changes in construction may be made within the scope and spirit of the following claims.

What I claim is:—

1. The combination with a tow line, of hooks having eye portions secured to the respective ends of said tow line, each of said hooks embodying a shank, a hook portion connected with said shank and two guard wings extending forwardly from opposite sides of said shank and leaving a recess therebetween, said guard wings forming shoulders directed toward the open portion of said hook, the point of said hook terminating between said guard wings, the guard wings being spaced from the sides of the hook a distance greater than the diameter of the tow line.

2. The combination with a tow line, of a hook having eye portions secured to the end of said tow line, said hook embodying a relatively broad shank, a hook portion connected with said shank and two divergent wings extending forwardly from opposite sides of said shank and leaving a recess therebetween, said guard wings forming shoulders directed toward the curve of said hook, the point of said hook being directed toward said recess and projecting beyond the plane that passes through said shoulders and terminating substantially in the plane of the outermost portions of said guard wings.

3. A hook of the class described, embodying a hook portion, a relatively wide shank connected with said hook portion, and two guard wings extending outwardly in divergent relation from the sides of said shank and leaving a recess therebetween, the bottom edges of said guard wings affording shoulders that face the curve portion of said hook, the point of said hook being directed toward the recess between said guard lips, said point projecting beyond the plane that is common to said shoulders and being within the plane of the outermost portions of said guard wings, said guard wings being spaced from the sides of said hook portion.

In witness whereof, I hereunto subscribe my name this 12th day of January A. D. 1927.

HENRY R. BENSON.