July 15, 1924. 1,501,138

H. M. ROUNDS

LINE COUPLING

Filed Oct. 5, 1923

FIG. 1

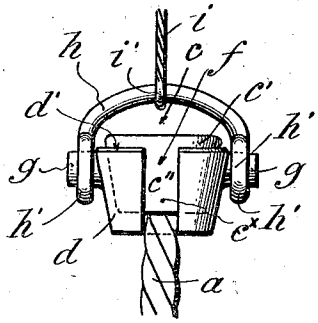


FIG. 2

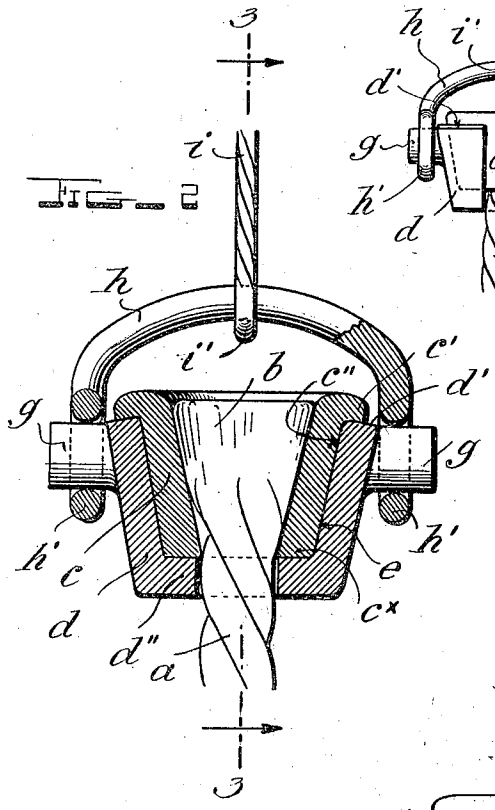


FIG. 3

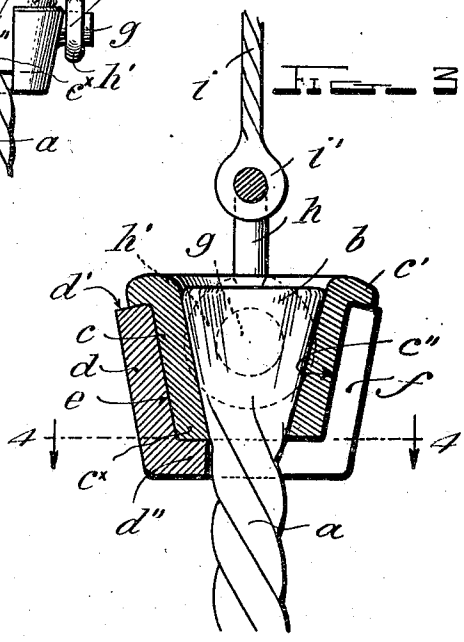


FIG. 4

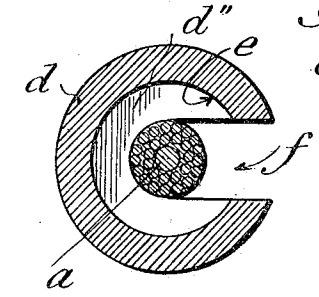
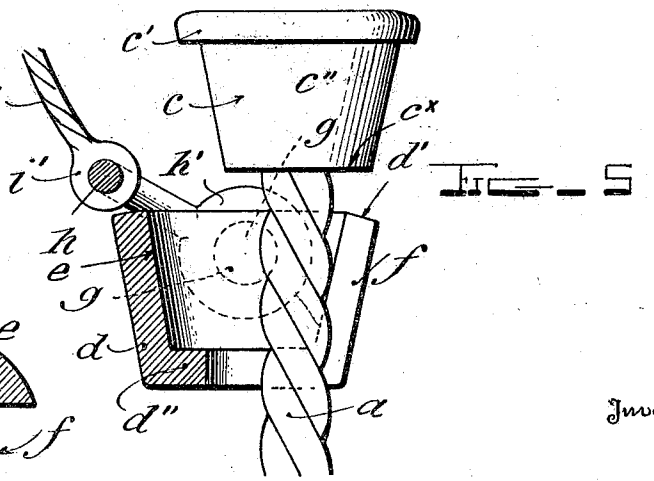


FIG. 5



Inventor

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UNITED STATES PATENT OFFICE.

HORACE M. ROUNDS, OF TACOMA, WASHINGTON.

LINE COUPLING.

Application filed October 5, 1923. Serial No. 666,868.

To all whom it may concern:

Be it known that I, HORACE M. ROUNDS, a citizen of the United States of America, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Line Couplings, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in means for detachably connecting or coupling together parts of lines (sky-lines, high-leads and the like); an instance of the use of such lines is in lumbering operations. An object of this invention is to provide a line-coupling which will prove simple in construction, comparatively cheap in manufacture, susceptible of ready installation, low in first cost and in cost of repairs and renewal of parts, and efficient and durable in operation and use.

In the drawings illustrating the principle of this invention and the best mode now known to me of applying that principle,

Figure 1 is an elevation of the line-coupling;

Figure 2 is a central, vertical section through the line-coupling;

Figure 3 is a section on the line 3—3, of Figure 2;

Figure 4 is a section on the line 4—4, of Figure 3; and

Figure 5 is a sectional view that illustrates the coupling (or uncoupling) of the device.

The line *a*, which may be a wire-rope, is enlarged at one of its ends *b*, and this distortion or deformation of the line-end *b* may be accomplished after the manner disclosed by United States Patent No. 802,537. The enlarged rope-end *b* is capped and held by a ferrule or rope-socket *c* which is approximately frusto-conical in shape and the larger (or upper) end of which is formed with a ringlike, outwardly-extending flange *c'*. The rope-socket or ferrule *c* is carried by a cooperating cup-shaped coupling-member *d*, which is called by me a container or basket. The interior lateral wall *e* of the latter is so formed that the outer lateral wall *c''* of the head or ferrule *c* bears thereagainst throughout the extent of the wall *e* and with a sliding or rubbing fit within the same. The flange *c'* rests and has a bearing upon the rim *d'* of the basket *d*; and it follows, therefore, that the head or socket-member *c* is free to turn freely or swivel within the basket *d*. As shown in the drawings, the basket *d* is formed with an inwardly-extending flange *d''* at its bottom, upon which bears the smaller (or lower) end *c*× of the ferrule *c*; but this flange *d''* may be dispensed with, if found desirable. The lateral wall of the basket *d* is formed with a lengthwise (or depthwise) extending slot *f* (Figs. 1, 4 and 5) that is of such size that the body *a* of the line may be passed freely therethrough. Extending or projecting sidewise from the upper portion of the basket *d* is a pair of lugs or trunnions *g*, upon which are mounted, free to rock, the apertured ends or ears *h'* of the bail *h*, to which is suitably attached the end *i'* of the line *i*. The bail *h* is shaped (that is, its bow or arch is low) so that, when tension is put on the coupled lines *a*, *i*, and they are drawn taut, (see Fig. 3), the bail *h* effectually locks the head *c* against jumping out of the basket *d*, should tension on the line *a* be suddenly relieved, causing an abrupt slackening of that line. However, for use in situations and under conditions where no such springing upwardly of the socket-member *c* need be guarded against, the handle of the basket may be fixed or stiff and rigid, with a higher arch to permit the removal of the socket-member *c*, when desired. As is illustrated in Fig. 5, the bail *h* may be thrown downwardly towards the basket *d*, when the workman wishes to uncouple (or to couple) the lines *a*, *i*, by raising (or lowering) the head *c* out of (or into) the basket *d* and passing the line *a* outwardly (or inwardly) through the slot *f*. As is clearly shown in Fig. 1, this slot *f* is closed partially by the wall *c''* of the head *c*, when the latter is assembled in its basket *d*.

In accordance with the patent statutes, I have shown and described the preferred form of this invention. However, I desire it to be distinctly understood that I fully realize that changes may be made in the structure herein disclosed; and I intend to include within the scope of the claims that follow hereinafter all modifications of the preferred form of this invention that do not depart substantially from the spirit thereof.

I am aware of United States Patent No. 917,738, granted Andrew Opsal April sixth, 1909, whereby there is disclosed no bail for preventing the head or ferrule, with which the end of the line is provided, from jumping out of its container.

I claim:

1. A line-coupling including a cup-shaped container the lateral wall of which is formed with a depthwise-extending slot that is of such shape and size as to permit the passage of the body of a line; a line-end-capping ferrule which is shaped to bear upon and turn freely in the container and the lateral wall of which closes the slot therein at least partially and which is capable of ready insertion therein and ready removal therefrom, together with the line, at the will of the operator, to permit the free coupling and uncoupling of the ferrule with and from its container, the line passing through the slot in the latter; and a container-bail the arch of which overlies the mouth thereof and to which the other line-end is fastened.

2. A line-coupling including a cup-shaped container the lateral wall of which is formed with a depthwise-extending slot that is of such shape and size as to permit the passage of the body of a line; a line-end-capping ferrule which is shaped to bear upon and turn freely in the container and which is capable of ready insertion therein and ready removal therefrom, together with the line, at the will of the operator, to permit the free coupling and uncoupling of the ferrule with and from its container, the line passing through the slot in the latter; and a container-bail to which the other line-end is fastened and which is mounted free to swing on the container, said bail having a low arch by which the ferrule is prevented from becoming uncoupled from its container accidentally while the lines are drawn taut in action and by the swinging back of which the mouth of the container may be uncovered to permit the removal of the ferrule therefrom purposefully.

Signed at the city of Warren, in the county of Warren and State of Pennsylvania, this third day of October, 1923, in the presence of the two undersigned witnesses.

HORACE M. ROUNDS

Witnesses:
H. W. CONARRO,
E. T. JOHNSON.