H. C. EARLE.

FLAGSTAFF.

APPLICATION FILED JAN. 20, 1915.

1,194,489. Patented Aug. 15, 1916.

Fig. 6.



Fig. 1.

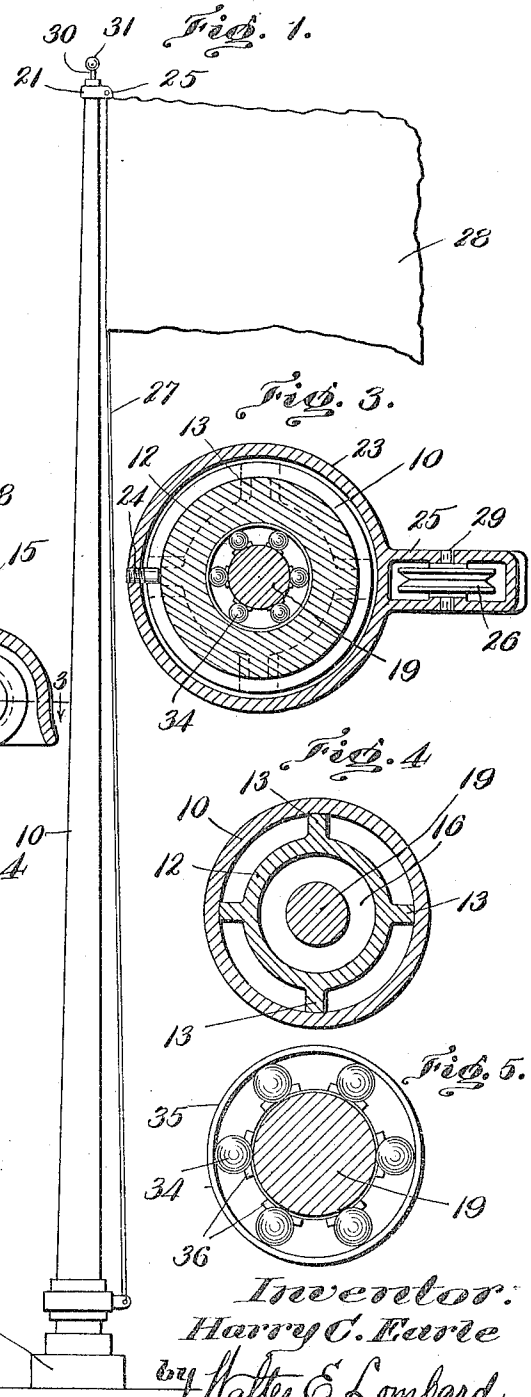


Fig. 2.

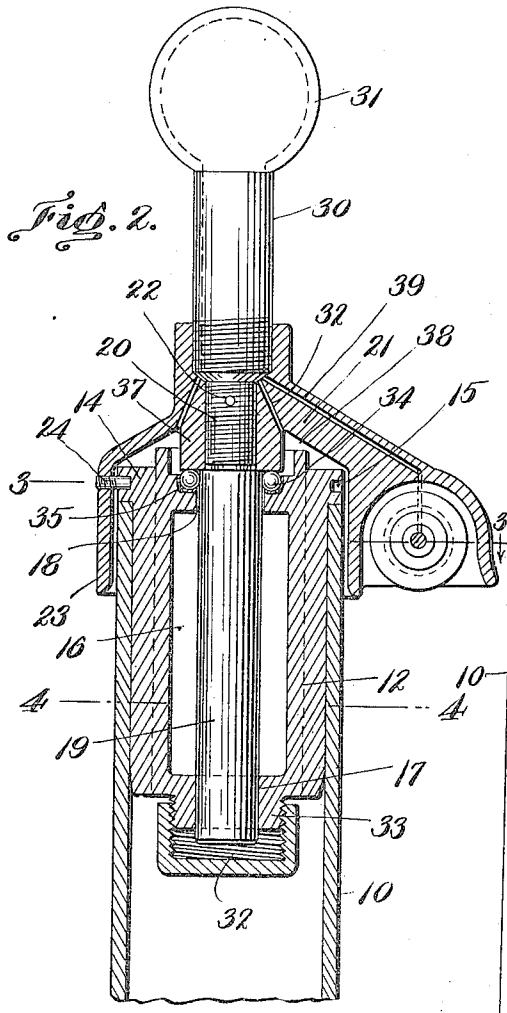


Fig. 3.

Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE.

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FLAGSTAFF.

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To all whom it may concern:

Be it known that I, HARRY C. EARLE, a citizen of the United States of America, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Flagstaffs, of which the following is a specification.

This invention relates to flag-staffs and particularly to that class of flag-staffs which are provided with revoluble tops.

The present invention has for its object the provision of a revoluble top of simple construction that may be assembled readily either before or after the erection of the pole, and in which means are provided for lubricating the running parts.

The invention consists in certain novel features of construction and arrangement of parts which will be fully understood by reference to the description of the drawings and to the claims hereinafter given.

Of the drawings: Figure 1 represents an elevation of a flag-staff embodying the principles of the present invention. Fig. 2 represents a vertical section of the upper end of the same. Fig. 3 represents a horizontal section of the same, the cutting plane being on line 3—3 on Fig. 2. Fig. 4 represents a horizontal section of the same, the cutting plane being on line 4—4 on Fig. 2. Fig. 5 represents a plan of the ball cage, and Fig. 6 represents a vertical section of one side thereof.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 10 represents a tubular flag pole mounted upon a base 11 and having driven into its upper end a head 12. This head 12 is provided with a plurality of ribs 13 extending longitudinally of its periphery, the outer faces of these ribs being adapted to fit the interior wall of the tubular member 10. The head 12 is also provided with a flange 14 having an annular groove 15 therein. When the head 12 is positioned in the upper end of the tubular member 10 the flange 14 rests upon the upper end of said member. The head 12 is also provided with a central chamber 16 having alined bearings 17 and 18 in which is revolubly mounted a shaft 19 having a reduced threaded portion 20 on which is secured a revoluble top 21, said top 21 being prevented from turning on the threaded end 20 by means of the pin 22.

The top 21 is provided with a downwardly extending flange or apron 23 surrounding the upper end of the tubular member 10. A member 24 secured to the apron 23 and projecting inwardly therefrom extends into the annular peripheral groove 15 and prevents the top 21 from being accidentally displaced or separated from the head 12. The revoluble top 21 is provided with a recessed extension 25 in which is mounted a sheave 26 to receive the halyards 27 for the flag 28. The sheave 26 is provided with alined trunnions 29 revolubly mounted in the side walls of the recessed extension 25. Extending upwardly from the revoluble top 21 and in axial alinement with the shaft 19 is a tubular member 30 surmounted by a hollow ball 31, the interior of which is adapted to be filled with grease or some similar lubricant. The top 21 is provided with passages 32 extending downwardly from the interior of the member 30, thereby permitting the grease contained within the receptacle 30—31 to pass downwardly to the bearings 17 and 18 to lubricate the same.

As the lubricant forces its way through the bearing 17 it will be collected in the interior of the cup-shaped member 32 threaded to the boss 33 on the lower end of the head 12. The bearing 18 is slightly larger than the bearing 17 and is provided with a plurality of caged balls 34 surrounding and engaging the revoluble shaft 19. The balls 34 are retained in an annular cage 35, the inner edge of which is provided with a plurality of upwardly extending fingers 36 to prevent the displacement of the balls during the assembling of the various parts of the device. The top 21 is provided with a downwardly extending hub 37 resting upon the balls 34, and this hub 37 is surrounded with an upwardly extending annular flange 38 which serves to collect the grease or lubricant passing through the passages 32 and direct it to the bearing 18.

Another grease passage 39 is provided extending from the source of supply to the bearings for the trunnions 29, this passage furnishing sufficient lubricant to permit the halyard sheave 26 to turn freely about its axis. This makes a very simple construction of top for flag staffs which is easily assembled and very effective in its operation.

It is believed that the operation and many advantages of this device will be fully understood from the foregoing description.

Having thus described my invention, I claim:

1. In a device of the class described, the combination of a vertical tubular member; a hollow head driven into the upper end thereof having alined bearings and a threaded boss projecting from the bottom thereof; a closure surrounding the lower bearing and threaded to said boss; a shaft revolubly mounted in said bearings; a cap secured to and revoluble with said shaft; a grease receptacle communicating with said bearings; and a halyard sheave carried by said cap.

2. In a device of the class described, the combination of a vertical tubular member; a hollow head driven into the upper end thereof having alined bearings and a threaded boss projecting from the bottom thereof; a closure surrounding the lower bearing and threaded to said boss; a shaft revolubly mounted in said bearings; a plurality of caged balls surrounding said shaft in the upper end of said head; a cap secured to and revoluble with said shaft; a grease receptacle communicating with said bearings; and a halyard sheave carried by said cap.

Signed by me at 4 Post Office Sq., Boston, Mass., this 16th day of December, 1914.

HARRY C. EARLE.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."