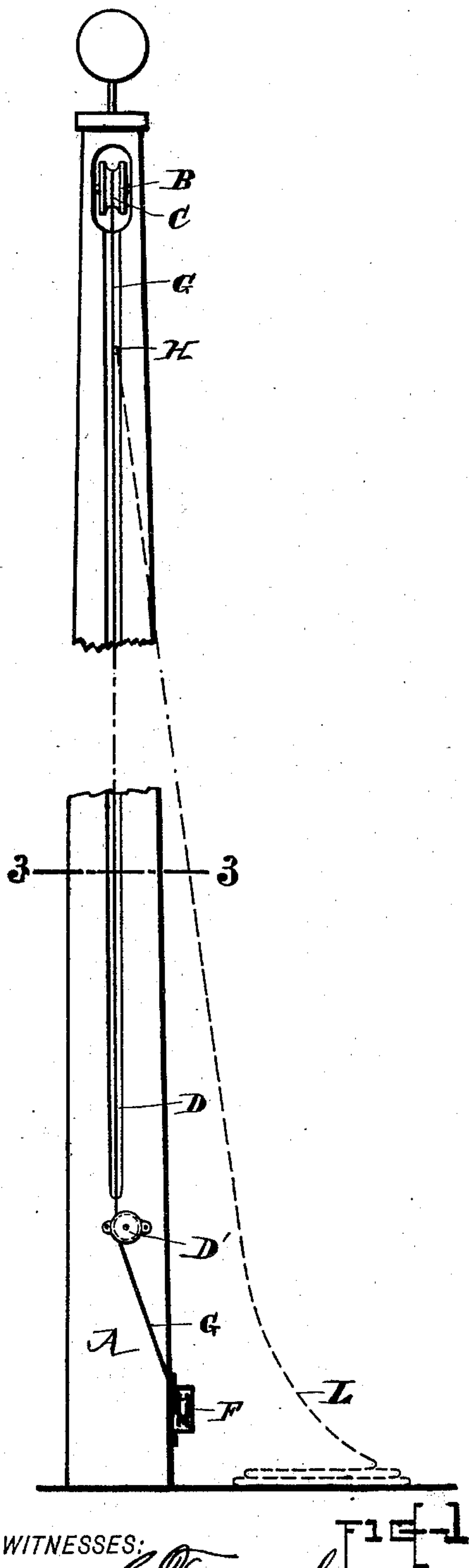


(No Model.)

S. A. L. WATERS.
DEVICE FOR REEVING HALYARDS.

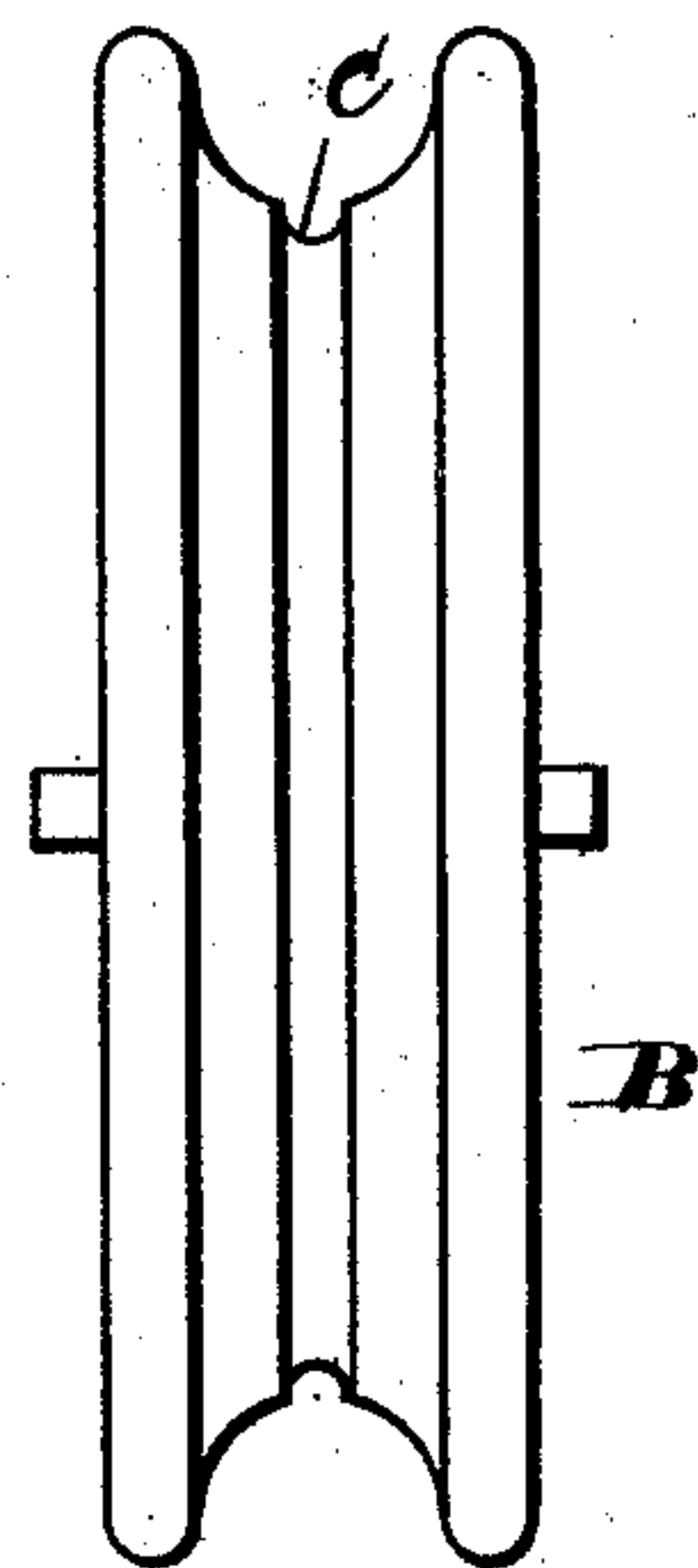
No. 505,782.

Patented Sept. 26, 1893.

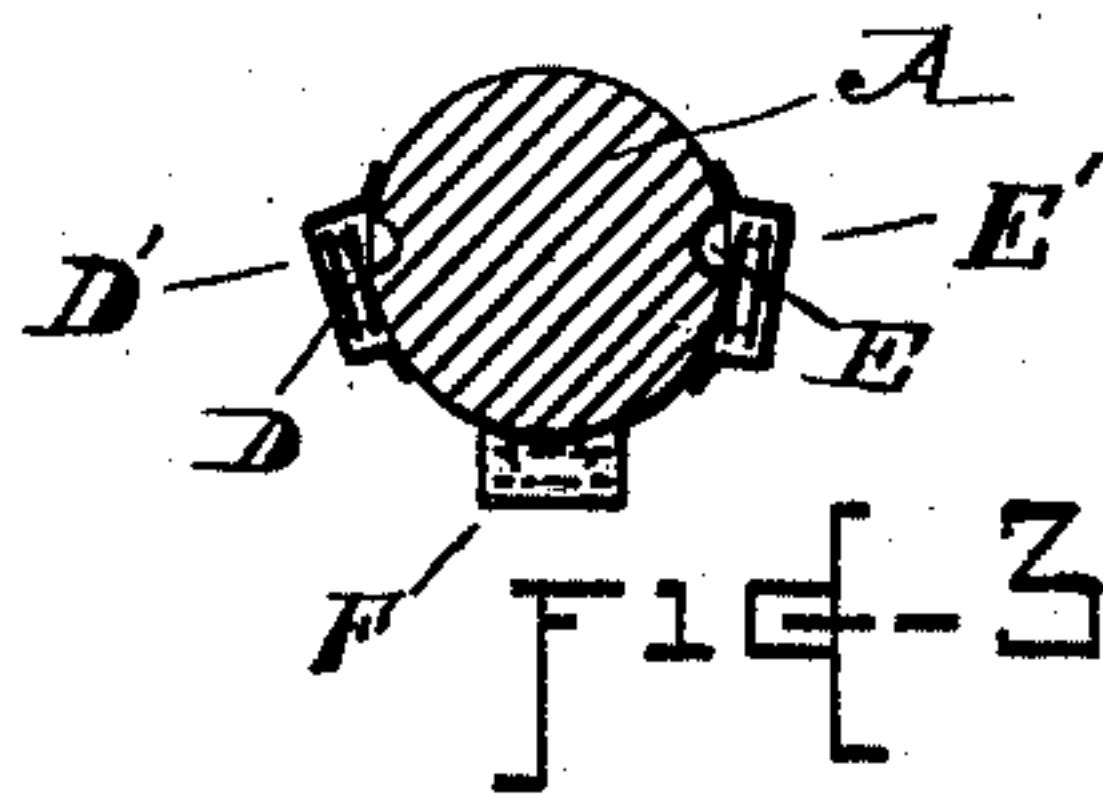


WITNESSES:

WITNESSES:
Rae G. Trombe
Burnham Kabisch



F14-2



S. A. L. Waters
INVENTOR

INVENTOR

BY Clarence T. Rogers
ATTORNEY

ATTORNEY

UNITED STATES PATENT OFFICE.

SAMUEL A. L. WATERS, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
OVERTON R. MILES, OF SAME PLACE.

DEVICE FOR REEVING HALYARDS.

SPECIFICATION forming part of Letters Patent No. 505,782, dated September 26, 1893.

Application filed December 21, 1892. Serial No. 455,888. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL A. L. WATERS, a citizen of the United States, residing in the city, county, and State of New York, have invented a certain new and useful Improvement in Devices for Reeving Halyards, of which the following is a specification.

The object of my invention is to provide a simple, convenient and efficient device for reeving halyards, as for raising and lowering flags and for analogous ends, from the foot of the halyard-staff, so as to obviate the necessity of going aloft for the purpose.

To this end my invention consists briefly of an endless fine wire or other line running through the halyard-sheave aloft, which I provide with a secondary groove for said line, and through sheaves located near the foot of the staff, the latter being provided with longitudinal channels on opposite sides, to sink the endless line out of the way of the halyards when rove.

My invention also comprises various novel features of construction and combinations of parts of the above.

In order that my invention may be clearly ascertained, I shall describe in detail the mode in which I carry the invention into effect and then distinctly claim the same.

Reference is to be had to the accompanying drawings forming part of this specification in which—

Figure 1 is a side elevation of a flag-staff provided with a halyard-reeving device embodying my invention. Fig. 2 is an enlarged view of the improved halyard-sheave employed in the same. Fig. 3 is a sectional plan view on the line 3 3, Fig. 1.

Like letters of reference designate corresponding parts in the several figures.

A designates the erect flag-staff and B the top sheave of the same through which the halyards are to be rove. I form said sheave B with a small secondary or sub-groove C at the

bottom of the main or halyard groove, and in opposite sides of the staff, I form small longitudinal channels D, E, leading to the opposite sides of said secondary groove C, and terminating downward near the foot of the staff, so as to be within convenient reach of the operator standing on the ground. At the lower ends of the channels D, E, I fix to the staff small blocks D' and E', to which said channels lead, and below and about midway between said blocks D' and E', a third block F. Through the halyard sheave B, the channels D, E, and the blocks D', E' and F, is rove an endless fine line G, preferably of flexible wire, having attached thereto a small loop H, to which one end of the halyard L is temporarily fastened, as indicated in Fig. 1. The operator can then by pulling down on the opposite strand of the line G, draw the halyard L upward through the sheave B and down within his reach on the opposite side, thus reeving the halyard, which is then unfastened from the line G, and is ready for use, either for hoisting a flag or for any other analogous purpose.

I claim as my invention—

1. Means for reeving halyards on a staff, which consist of a halyard sheave journaled in the staff, said sheave having a main groove and a lesser groove in the bottom of the main groove, and an endless line running up and down said staff and lying in said lesser groove, substantially as herein described.

2. Means for reeving halyards on a staff, which consist of a halyard sheave journaled in the staff, channels formed in the opposite sides of said staff, a block on the foot of said staff, and an endless line running through said halyard-sheave, channels and said block, substantially as described.

SAMUEL A. L. WATERS.

Witnesses:

CLARENCE L. BURGER,
ROSCOE C. TOOMBS.