No. 610,846. Patented Sept. 13, 1898.

E. Y. S. HUBBARD.

ROPE MEASURING MACHINE.

(Application filed June 29, 1897.)

(No Model.)

Fig. 2.

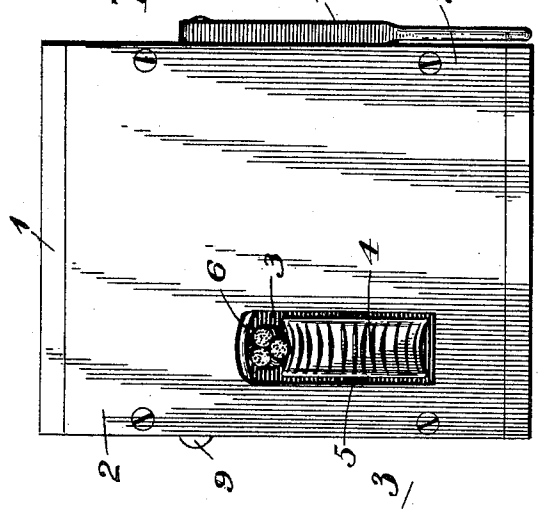


Fig. 3.

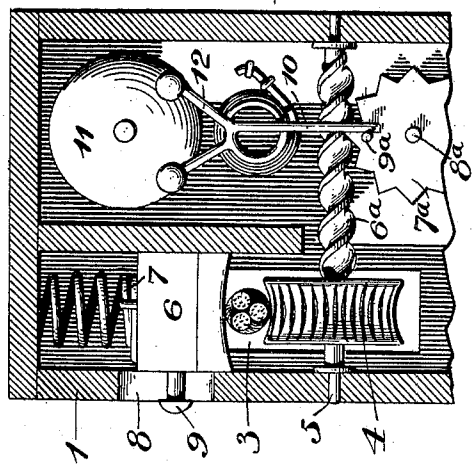
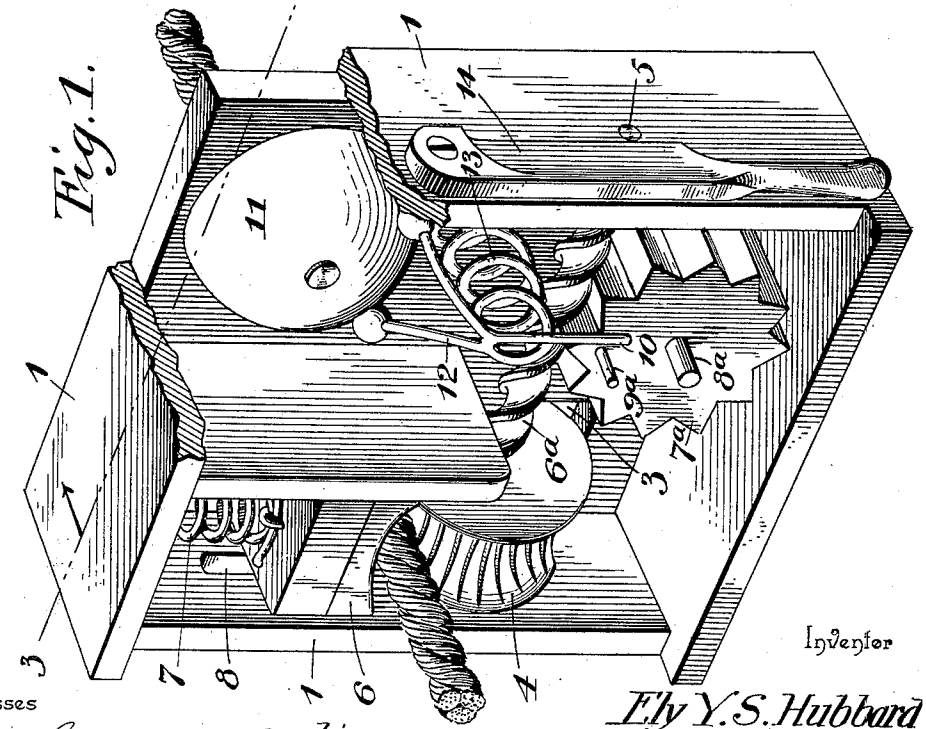


Fig. 1.



Witnesses

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ELY Y SEALE HUBBARD, OF RANCHO, TEXAS.

ROPE-MEASURING MACHINE.

SPECIFICATION forming part of Letters Patent No. 610,846, dated September 13, 1898.

Application filed June 29, 1897. Serial No. 642,823. (No model.)

To all whom it may concern:

Be it known that I, ELY Y SEALE HUBBARD, a citizen of the United States, residing at Rancho, in the county of Gonzales and State of Texas, have invented a new and useful Rope-Measuring Machine, of which the following is a specification.

The invention relates to improvements in rope-measuring machines.

The object of the present invention is to improve the construction of rope-measuring machines and to provide a simple and comparatively inexpensive device adapted for rapidly and accurately measuring ropes of different diameters as the same are unreeled or removed from coils and capable of being readily mounted on or adjacent to a rope-reel or near a counter or similar support in convenient position for ready use.

A further object of the invention is to provide such a device which will sound an alarm as each yard or other given unit of length of rope is unwound in order to enable the rope to be quickly handled without watching an indicator.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a rope-measuring machine constructed in accordance with this invention, the face-plate of the casing being removed. Fig. 2 is an elevation of the device complete. Fig. 3 is a vertical sectional view on line 3 3 of Fig. 1.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 designates a substantially rectangular casing provided with a removable face-plate or side 2 and having an opening 3 extending through and formed by slotting its front and rear walls or plates to provide a passage for the rope. The rope in passing through the machine engages a wheel 4, which is mounted on a shaft 5 and which is provided with a serrated concave circumference, whereby the positive engagement between the rope and the wheel is produced. The rope is also held in frictional engagement with the wheel by a pressure-block 6, vertically movable in suitable ways of the casing and actuated by a coiled spring 7. One end of the casing is provided with a vertical slot 8, in which is arranged a guide pin or screw 9, which retains the pressure-block in the ways. The pressure-block is adapted to yield readily and enables ropes of different diameters to be readily passed through the casing of the machine.

The shaft 5 is provided with a worm 6^a, which meshes with a gear-wheel 7^a, mounted on a suitable shaft 8^a and carrying a projection or pin 9^a, adapted to engage an arm 10 of an alarm mechanism, whereby a bell 11 is rung at each revolution of the gear-wheel 7^a. The diameter of the rope-receiving wheel is designed to be such that the alarm will be sounded at every yard of rope unreeled, but any other unit of length may be employed.

The alarm mechanism comprises the bell 11 and a substantially V-shaped bell-hammer 12, mounted on a coiled spring 13 and connected with the said arm 10. The V-shaped bell-hammer has its sides arranged at opposite sides of the bell, and each side is provided with a hammer-head, so that the alarm will be sounded when the gear-wheel makes a rotation in either direction, whereby the device is operative when the rope is passed through either way. The coiled spring is secured to the back of the machine, and the arm 10 preferably consists of an extension of the front end of the spring, but the parts may be constructed in any other suitable manner. The arm 10 and the bell-hammer constitute a lever, and the spring 13, which supports the lever, serves to pivot the same, besides rendering it resilient.

The device is provided at one side with a pivoted knife 14, adapted to enable rope to be readily severed after being measured.

This invention has the following advantages: The machine will operate when rope is passed through it from either its front or back and will sound an alarm at each yard of rope measured. It will enable rope to be rapidly handled without requiring an operator to watch an indicator during the operation of measuring.

What I claim is—

1. In a machine for measuring rope, the

combination of a casing having an opening extending entirely through it and adapted to receive a rope, a rope-receiving wheel mounted in the casing adjacent to the opening in position to be engaged and actuated by a rope, a gear-wheel provided with a projection and connected with and actuated by the rope-receiving wheel, a bell, a lever consisting of a V-shaped bell-hammer arranged to engage the bell when oscillated in either direction, and an arm 10 extending from the apex of the bell-hammer and arranged to be engaged by the said projection, and a coiled spring secured at one end and having its other end connected with the said lever at the apex of the bell-hammer, forming the sole support of the same and performing the double function of a spring and a pivot, substantially as described.

2. In a machine of the class described, the combination with a bell, of a lever having one end forming a bell-hammer, and a coiled spring connected with the lever at a point between the ends thereof, forming the sole support for the same and performing the double function of a pivot and a spring, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ELY Y SEALE HUBBARD.

Witnesses:

P. T. McPETERS,

W. J. RADER.