(No Model.)

R. E. L. J. LOVELL.

MACHINE FOR MEASURING CLOTH, &c.

No. 592,636. Patented Oct. 26, 1897.

Fig. 1.

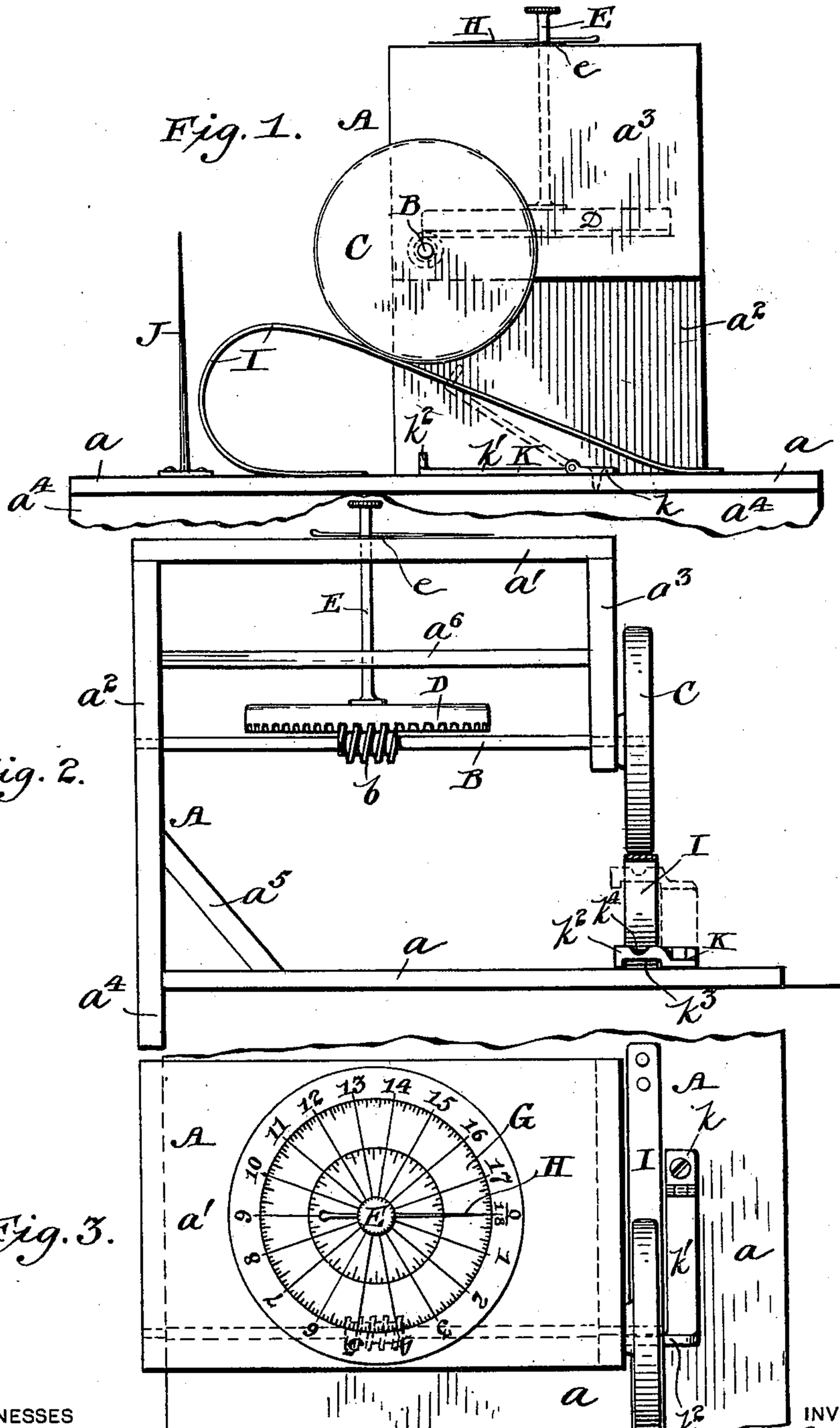

Fig. 2.

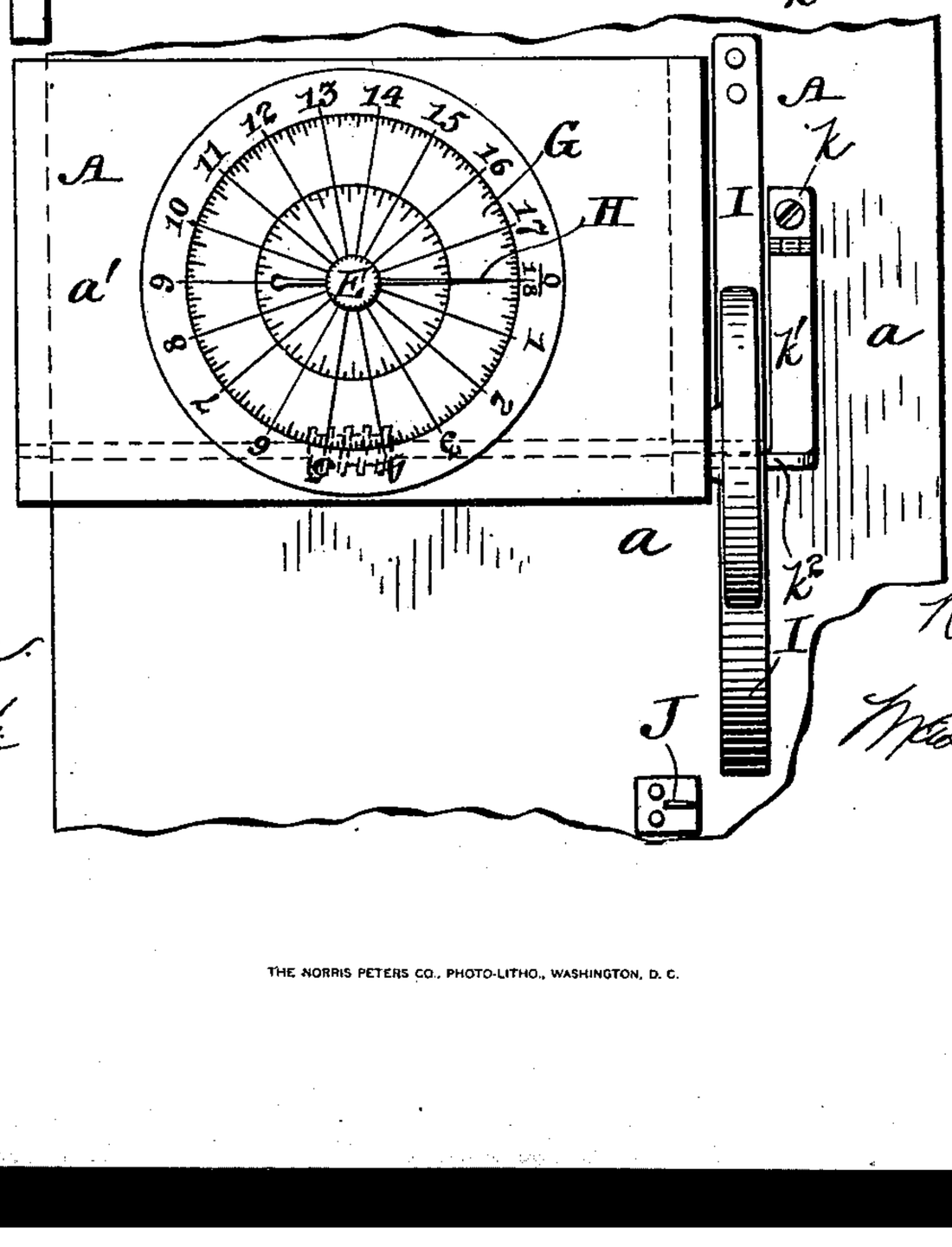

Fig. 3.

WITNESSES

Severance.

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INVENTOR

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by his Attys

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UNITED STATES PATENT OFFICE.

ROBERT E. L. J. LOVELL, OF VADIS, WEST VIRGINIA.

MACHINE FOR MEASURING CLOTH, &c.

SPECIFICATION forming part of Letters Patent No. 592,636, dated October 26, 1897.

Application filed April 24, 1897. Serial No. 633,722. (No model.)

To all whom it may concern:

Be it known that I, ROBERT E. L. J. LOVELL, a citizen of the United States, residing at Vadis, in the county of Lewis and State of West Virginia, have invented certain new and useful Improvements in Machines for Measuring Cloth, Rope, and the Like; and I do hereby declare the following to be full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to machines for measuring cloth, rope, and the like; and it consists of certain novel constructions, combinations, and arrangement of parts, as will be hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is a front elevation of my improved machine. Fig. 2 is a vertical longitudinal section through the same, and Fig. 3 is a top plan view of said machine.

A in the drawings represents my improved machine, which is adapted to be secured in position on a counter, stand, or other support. The frame of the machine comprises a horizontal base portion a, an upper horizontal portion a', a back connecting portion a^2, and a downwardly-extending front pendent portion a^3.

The rear vertical connecting portion a^2 preferably extends below the base portion a, as shown at a^4, for the purpose of engaging the edge of the counter, shelf, or support and thereby steady the machine. The machine may be secured to the counter in any suitable manner. Braces a^5 connect the rear end of the base a with the rear vertical portion a^2, and thus further strengthening the frame of the machine. A rod a^6 connects the rear vertical wall a^2 and the front pendent portion or wall a^3, which further strengthens the frame of the machine. A shaft B is journaled at its ends in suitable bearings formed in the front and rear walls a^3 a^2, as shown in the drawings. The front end of this shaft extends slightly beyond the front wall a^3 and is provided with a wheel C. The circumference of this wheel is equal to a definite portion of a yard, so that with each revolution of the said wheel C, which is operated by the cloth or rope coming in contact with the same in a manner as will be hereinafter described, a certain amount of cloth will be measured off and the amount indicated on the dial on top of the machine, as will now be fully set forth.

The shaft B is provided with a worm-gear b at a suitable point in its length, which meshes with a gear-wheel D, which is made of a proper size to correspond with the wheel C. A vertically-sliding shaft E is secured to the gear-wheel D and passes through the rod a^6 and the upper horizontal portion a'. This shaft E extends some distance above the upper horizontal portion a', so as to enable it to be grasped by the fingers of the operator and raised so as to bring the gear-wheel D out of engagement with the worm-gear F. This shaft E is adjusted so as to permit the gear-wheel D to properly mesh with the worm-gear F. When this adjustment is secured, the same is maintained by a nut or washer e, which is secured to the shaft at the proper place, so as to bear against the upper surface of the dial G and prevent the shaft from descending farther, and at the same time permitting the shaft to be raised for the purpose of disengaging the gear-wheel D from the worm F and for turning the indicator H, which is secured to said shaft, backward when it is desired to reset the register. The advantage of having the shaft E vertically adjustable is that after one lot of material or rope has been measured off and the amount indicated, the indicator or pointer can be at once returned to the starting-point or o and be ready for another operation. This is important, as it is easier to read and determine the number of yards which have been measured off from o than it is to calculate from some intermediate point. The advantage of using a stationary dial and a movable pointer over using a movable dial and a fixed pointer is that it requires less strain on the material being measured to operate the indicator or pointer than it would to revolve a dial. Another advantage is that an operator becomes more familiar with the location of figures upon a dial which is stationary than he does with figures on a moving dial. A flat spring I is secured at its ends to the base a directly beneath the wheel C, so that it will bear against the periphery of said wheel, as indicated in the drawings. The material to be measured is placed between the spring and

the wheel C by slightly depressing said spring and the material drawn forward. The material, being in direct contact with wheel C, causes the latter to revolve as the material is drawn forward, which imparts motion to the worm F and to the gear-wheel D and shaft E and indicator H. A severing device J is located on the base *a* at a point to one side and in advance of the spring I. This severing device preferably consists of a rod having a sharpened or knife edge *j* at or near its upper end, so that when a desired quantity of material is measured off the cloth can be slightly cut for tearing or entirely severed by bringing it in contact with the severing device J.

The machine thus far described is capable of measuring cloth or the like. When it is desired to measure rope, I employ the attachment K, which is secured to the base of the machine, preferably, so as to be capable of being turned horizontally. This device, which consists preferably of two hinged plates *k k'*, is located directly beneath or slightly to one side of the spring I. The outer end of the plate *k'* is formed with a laterally-extending arm k^2, which latter is formed on its under side with a recess k^3 to receive the spring I and on its upper surface with a groove k^4, in which the rope being measured rests. The groove k^4 is so shaped as to tend to feed or press the rope toward the wheel C, and the spring keeps the rope in contact with the wheel and thereby causes the said wheel to revolve when the rope is drawn forward.

It will be observed that by constructing the front wall in a pendent manner, so as to have the front of the frame opened beneath this pendent front wall, the material can be conveniently measured, and that in the case of measuring cloth the edge of the cloth can extend beyond the inner edge of the spring and wheel, which facilities measuring the same.

It will also be observed that the machine is very compact and light, and, being firmly secured to the counter or other support, is held steadily to its work, and, being capable of measuring both cloth and rope, will be found a very convenient and useful machine.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a cloth-measuring machine, of a flat spring bent into the form of a loop being secured at its ends to the base of the machine beneath the cloth-holding wheel so as to come in contact with said wheel and a rope holding and guiding device comprising two hinged plates *k' k'*, the outer end of the plate *k'* having laterally-extending arms k^2 provided with a recess k^3 to receive the flat spring and with a grooved plate k^4 in which the rope rests, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

ROBERT E. L. J. LOVELL.

Witnesses:
A. D. DENT,
EMRY HALL.