

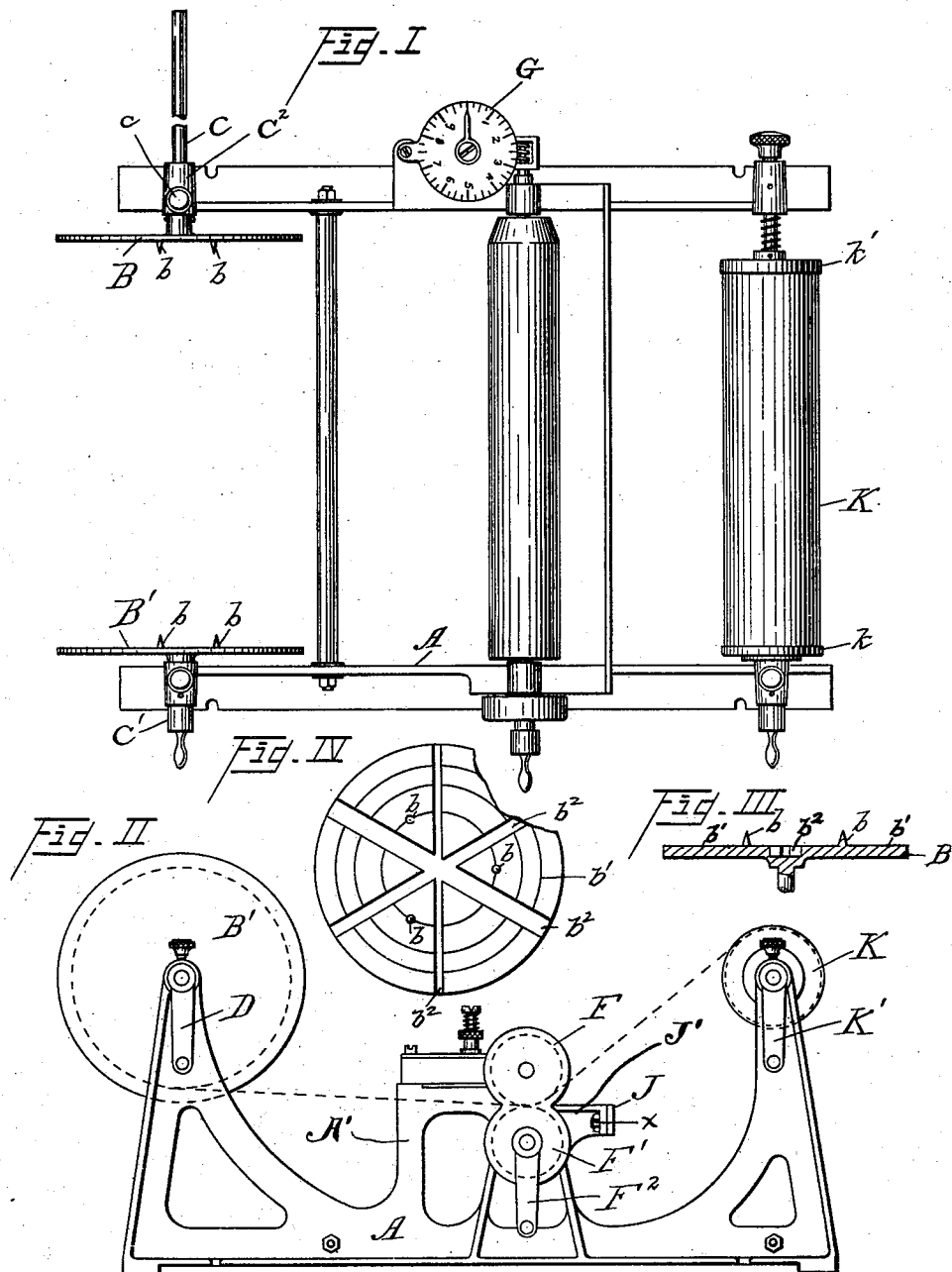
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PATENTED MAR. 22, 1904.

H. F. LEICK & M. J. O'DONNELL.
MEASURING DEVICE.

APPLICATION FILED JAN. 2, 1902.

NO MODEL.



Witnesses:

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UNITED STATES PATENT OFFICE.

HORACE F. LEICK AND MARTIN J. O'DONNELL, OF CLEVELAND, OHIO.

MEASURING DEVICE.

SPECIFICATION forming part of Letters Patent No. 755,300, dated March 22, 1904.

Application filed January 2, 1902. Serial No. 88,071. (No model.)

To all whom it may concern:

Be it known that we, HORACE F. LEICK and MARTIN J. O'DONNELL, citizens of the United States, both residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Measuring Devices; and we hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

Our invention relates to measuring devices for fabrics, more especially such as ribbons, laces, bindings, insertions, or such as are contained on or put up in the form of spools or cards in continuous form.

The objects of our invention are, first, convenience in handling the material, accuracy in measurement, cleanliness in handling the stock, and economy of time in measuring the same.

With the above objects in view our invention consists in the peculiar construction of the machine, whereby it is adapted to handling several grades of goods above enumerated with equal facility and economy, all of which will be hereinafter fully set forth and claimed.

In the drawings, Figure I is a view in plan looking at the machine from above as we prefer to construct it. Fig. II is a view in side elevation illustrating the machine or device as it appears when looked at from the side provided with the operating-handles. Figs. III and IV illustrate modified forms of chucks or holders adapted for grasping or retaining the cards or spools containing the fabric or upon which the same is wound or rolled.

A represents a frame of any suitable construction which forms the support and journal for the operative parts of the machine. Mounted at one end of the frame A are two disks B B', which form the chuck for holding the spool, bolt, or card upon which the ribbon or fabric is wound. These disks B B' are mounted upon their respective shafts C C', the disk B' being mounted, preferably, so as to revolve with the shaft C', which may be provided with a crank D. The shaft C', with

its disk B', is mounted so as to be firmly held from lateral play, while allowing of the free revolution of the same. The disk B and the shaft C, upon which it is mounted, are susceptible of lateral adjustment toward and from the disk B', thus allowing of different lengths of bolts, cards, or spools to be received between said disks and held in position thereby while revolving either to take in or to let off the fabric of the bolt, spool, or card. The method of providing the adjustment of the disk B with its shaft C is preferably to mount said disk upon said shaft, so that the disk will revolve independent of the shaft, the shaft being adjusted in its bearings C² by means of set-screw *c* or otherwise to or from the disk B'. Tension devices may be employed to prevent the disks B and B' from revolving too freely. The shafts C and C' may be formed with recesses or be formed of hollow tubing, so as to receive any central projecting portion.

Located intermediate within the frame A are two rollers F F', the surfaces of which are preferably formed of some elastic material—such, for instance, as rubber. The rollers F F' are preferably mounted one over the other, and the lower one, F', is in contact with the upper one, the tension between the two being such as to just allow for the passage of the fabric between them without distorting the said fabric. One of the rollers F or F', preferably the lower one, is provided with a crank-handle F², by means of which the said rollers are caused to revolve and measure off the fabric which is drawn from the bolt, card, or spool between said rollers. In order that the length which is drawn between the rollers F and F' may be ascertained, we connect one of said rollers, preferably the upper one, with a register or indicator G either by means of a worm-gear or other means of mechanical connection between the two, whereby as the said roller revolves the distance of travel of its periphery G, and hence the length of the material passing over it, is determined, and it is thus that the fabric is measured off. The scale of the register G may be divided into yards, half or quarter yards, or otherwise, according to convenience or necessity.

Located directly in front of the rollers F F' is a straight-edge J, the upper surface of which is adapted to shear the fabric at any predetermined point according to measurement desired, thus obviating the necessity for using the independent cutter, such as a knife or shear, in retailing the goods. The cutting edge is removably secured to the rearwardly-extending arms J' of the standards A' by means of bolts, as shown at *a*.

Located above and to one side of the measuring-rolls F F', we mount a roller or spool K, which is adapted to receive the free end of the fabric and wind it or pack it for wrapping purposes or storing purposes. This roll K may be formed part of the machine itself or may be constructed of two chucks *k k'* adjustable in relation to each other in such a manner as to retain an independent spool K between them, which spool may, if desired, be packed with the measured-off portion of the fabric and a new one supplied in its place in the machine, or it may be of such a construction that the fabric having been measured off on it may be slipped off of it and the spool replaced in the machine. In either case we prefer to provide this roller or spool K with a crank K' for manipulating it.

As illustrated in Figs. III and IV, disks B and B' may be provided with studs *b b'*, three or more in number, for engaging with a spool, also with concentric rings *b' b'* as guides for centering the spool, and with slots *b² b²* of different widths adapted to receive cards, thus adapting said disks to receive the various types of spools, bolts, or cards upon which the fabric is wound.

The operation of this device will be readily understood and will need no further description than to say that the bolt, spool, or card of material is placed between the disks B B', said disks being adjusted to receive and retain the same, the loose ends of the fabrics then passed between the rollers F and F', which have been previously adjusted so that the

register G will tally with the straight-edge J in the offtake measurement, when as the fabric is passed between said rollers either through winding it on the spool K or pulling it by hand the amount taken from the roll between the disks B B' is indicated by the register G and positively measured off without any liability of making any mistakes, such as in manual measurement often happens.

Our device is especially adapted for all kinds of measurements either in retailing the goods or in invoicing the same, and being accurate in its tally mistakes cannot be made, as the register G records all material that passes between the rollers F and F'.

In setting forth our invention we have referred to various details of construction and illustrated certain features of construction in the drawings as also an assemblage of parts which we consider best adapted to carry out our invention. It is, however, obvious to those skilled in the art that various modifications may be made both in structural features and assemblage without departing from our invention.

What we claim is—

In a machine of the type set forth, a frame formed with end and intermediate standards, spool-receiving chucks mounted in the end standards, a pair of rollers journaled in the intermediate standards, one above the other, and lying below said chucks, a horizontal arm formed integral with each of said intermediate standards, a straight-edge, and bolts extending through said straight-edge and horizontal arms.

Signed by us at Cleveland, county of Cuyahoga, and State of Ohio, this 31st day of October, 1901.

HORACE F. LEICK.
MARTIN J. O'DONNELL.

Witnesses:

E. B. DONNELLY,
W. E. DONNELLY.