R. J. DELLINGER.

YARDAGE REGISTER FOR CLOTH FOLDING AND MEASURING MACHINES.

APPLICATION FILED JUNE 15, 1918. RENEWED JULY 31, 1920.

1,364,081. **Patented Jan. 4, 1921.**

2 SHEETS—SHEET 1.

FIG. 1.

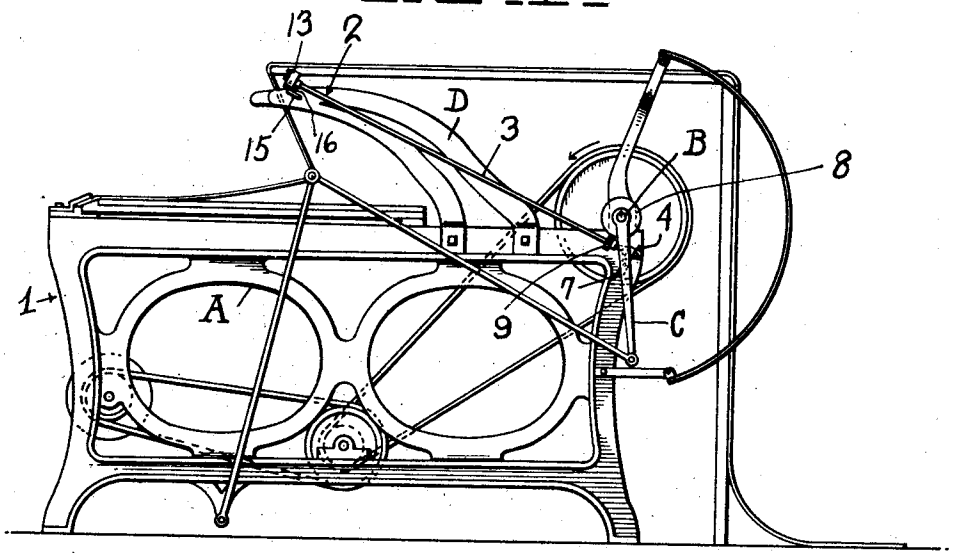
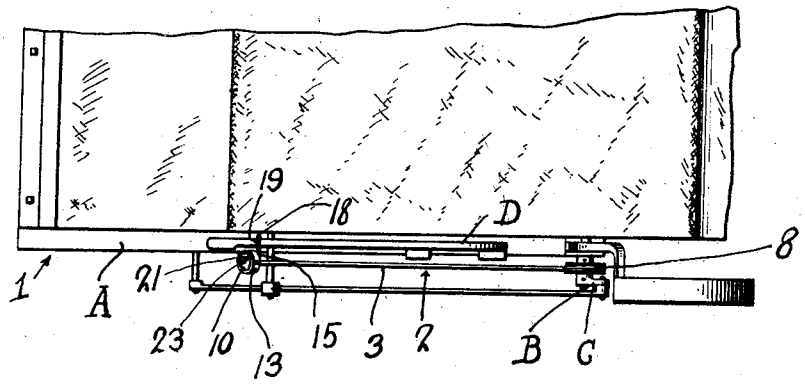


FIG. 2.



Witness
L. B. James

Inventor
R. J. Dellinger

By John P. Duffie
Attorney

R. J. DELLINGER.

YARDAGE REGISTER FOR CLOTH FOLDING AND MEASURING MACHINES.

APPLICATION FILED JUNE 15, 1918. RENEWED JULY 31, 1920.

1,364,081. **Patented Jan. 4, 1921.**

2 SHEETS—SHEET 2.

FIG. 3.

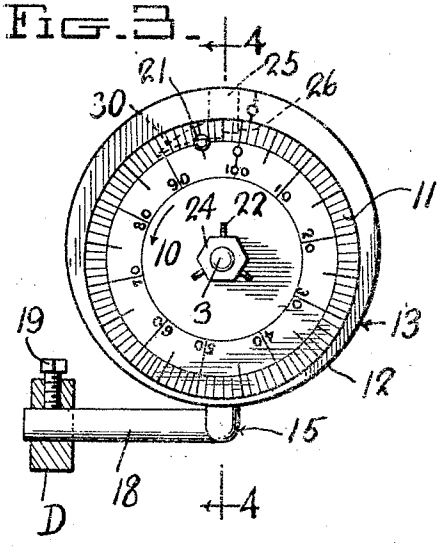


FIG. 4.

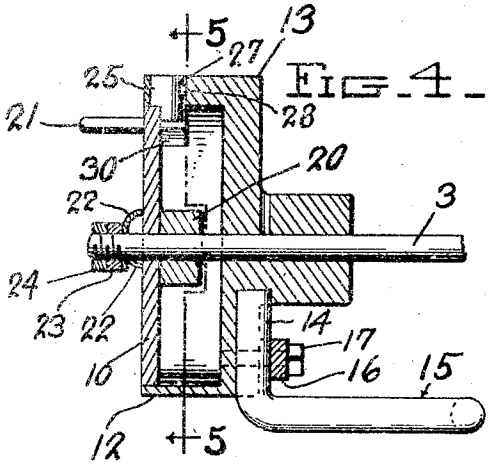


FIG. 5

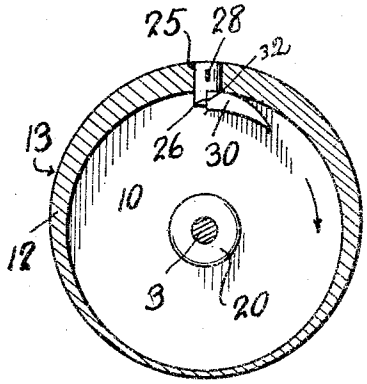


FIG. 6.

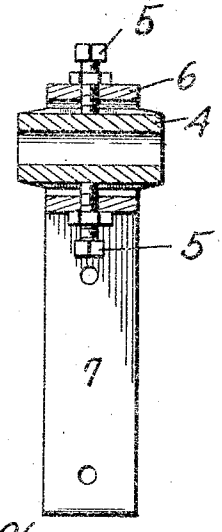


FIG. 7.

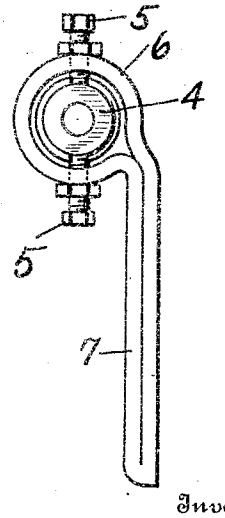
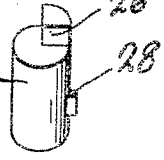


FIG. 8.



Witness
L. B. James

Inventor
R. J. Dellinger
By John P. Dellinger
Attorney

UNITED STATES PATENT OFFICE.

ROBERT J. DELLINGER, OF CHERRYVILLE, NORTH CAROLINA, ASSIGNOR OF ONE-THIRD TO DAVID P. DELLINGER AND ONE-THIRD TO MICHAEL L. CRAFT, BOTH OF CHERRYVILLE, NORTH CAROLINA.

YARDAGE-REGISTER FOR CLOTH FOLDING AND MEASURING MACHINES.

1,364,081. Specification of Letters Patent. Patented Jan. 4, 1921.

Application filed June 15, 1918, Serial No. 240,212. Renewed July 31, 1920. Serial No. 400,545.

To all whom it may concern:

Be it known that I, ROBERT J. DELLINGER, a citizen of the United States, residing at Cherryville, in the county of Gaston and State of North Carolina, have invented certain new and useful Improvements in Yardage-Registers for Cloth Folding and Measuring machines, of which the following is a specification.

This invention relates to new and useful improvements in cloth folding and measuring machines and more particularly to a registering device to automatically register or record the number of yards folded by the machine from a bolt of goods.

With the foregoing and other objects in view that will appear as the nature of the invention is better understood, the same consists in the novel features of construction, combination and arrangement of parts illustrated in the drawings and more particularly pointed out in the appended claims.

In the accompanying drawings:—

Figure 1 is a side elevation, illustrating the application of the invention to a folding and measuring machine of the Elliot type.

Fig. 2 is a plan view of Fig. 1, only a portion of the folding machine being shown.

Fig. 3 is a face view of the register proper.

Fig. 4 is a vertical transverse section, taken on the plane indicated by the dotted lines 4—4 of Fig. 3.

Fig. 5 is a similar view, taken on line 5—5 of Fig. 4, also looking in the direction indicated by the arrows.

Fig. 6 is an inside elevation, partly in section, of an adjustable bearing for the lower end of the dial actuating shaft.

Fig. 7 is an edge view of Fig. 6 and Fig. 8 is a detail perspective view of the setting pin.

Referring to the drawings for a more particular description of the invention and which drawings are for illustrative purposes only and are therefore not drawn to scale, the numeral 1 indicates a cloth folding and measuring machine of the Elliot type in which the bolt roller on crank shaft B makes one revolution for each yard of cloth folded, and 2 the yardage registering device as a whole. Specifically, the registering device comprises an upwardly inclined dial actuating shaft 3, the lower end of which is mounted in the bearing 4, adjustably held by the set screws 5 in the tubular offset portion 6 of the supporting bracket 7 attached to the frame A of the cloth folding machine beneath and slightly in rear of a worm 8 arranged on one end of the crank shaft B adjacent the crank C. A pinion 9 is arranged on the lower or rear end of the dial actuating shaft 3 to intermesh with the teeth of said worm, the purpose of which will presently appear.

A dial 10 in the form of a flat circular plate or disk, is revolubly mounted on the upper or front end of the shaft 3. The face of the aforesaid dial, at the edge, is marked off or graduated, as at 11, from zero to 100, each graduation representing one yard. It will be observed that the dial works within the annular flange or rim 12 of a casing 13 mounted on the upper end 14 of the bracket rod 15 and detachably held in place by the strap and set screws 16 and 17, respectively. The other end or terminal, as 18, of said rod, extends horizontally through the upper curved or arc-shaped member D of the folding machine frame and is retained in place by the set screws 19.

The dial is held with sufficient pressure or tension against a collar 20 on the upper end of the shaft 3 to cause it to turn with the latter under normal conditions, as during the cloth folding and measuring operation, but may be freely and readily turned on the rod to re-set or re-adjust the same after a bolt of cloth has been completed, by grasping a small knob 21 projecting from the outer face and edge of the dial, as indicated. This object is accomplished by interposing a three prong washer like spring 22 between a nut 23 threaded on the outer end of the shaft 3 and the face of the dial, a lock or jam nut 24 being screwed on the rod 3 against the nut 23 to hold the latter against working loose, as is apparent.

A setting pin, comprising a cylindrical body portion 25 and a depending cut-away portion 26, is mounted for end-wise movement in a corresponding opening 27 in the top of the flange or rim 12 of the casing 13 and is held against rotary or turning movement by a key or rib 28 formed on the body portion of the pin and working in a corresponding groove 29 in the wall of said opening 27. It will be observed that the reduced

or cut-away portion of the setting pin projects below the inner edge of the flange or rim 12 of the casing 13 and is disposed in the path of movement of a cam 30 carried by the inner face of the dial. As shown, said cam is formed with an inclined outer edge 31 which engages the bottom of the setting pin and and lifts the latter sufficiently, one for each revolution of the dial, to permit the cam to pass while the dial is moving forward, as indicated by the arrow in Fig. 3, thus permitting the dial to make any number of revolutions and count any number of multiples of 100 yards of cloth. The pin 25, however, enables the operator to readily re-set the dial without taking his eyes off other work or by casual movement, simply by turning the dial backward until the end 32 of the cam engages the depending cut-away portion of the pin, in which case the dial registers one yard as indicated in Fig. 3 of the drawings. The dial is arranged to register one yard before the machine is started for the reason that one yard of cloth is accounted for in passing it over the folding rod of the folding machine to thread to point where it will be cut off. Thus the number of yards indicated on dial of the register when the folding machine stops will be correct.

It is apparent that while the dial shown in the present illustration will register 100 yards for one revolution, it can be arranged to register 200 yards or more as easily or cheaply. The need of a register of the kind herein shown and described is very great for the reason that there is now no way of determining the yardage in bolts of cloth put up by factories throughout the country except by having a person count the yards personally as the cloth is folded. It is extremely difficult if not impossible for anyone to do this day in and day out with the many interruptions that are certain to arise from time to time without making mistakes. All mistakes of shortages are made known to the manufacturer and must be made good and it is the common experience of manufacturers, that although there are probably as many overages as shortages, the purchaser is almost certain to claim a shortage. This represents a dead loss to the manufacturer not only in material required to make up any unjust claims for shortages, but in the time and labor consumed to fill such short orders.

With the use of my register, mistakes are practically impossible, while the operator can give part of his time to other work in the room.

From the foregoing description taken in connection with the drawings, it is thought that the construction, operation and advantages of this invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportions and minor details of construction may be resorted to without departing from the principles or sacrificing any of the advantages of this invention as defined in the appended claim.

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

A yardage register for cloth folding machines, comprising a dial actuating shaft mounted on the machine frame, a graduated dial carried by one end of said shaft, means for connecting the dial with said shaft whereby the former will turn with the latter during the measuring and folding operation but may be turned independently thereon to re-set the dial, means for operatively gearing the dial actuating shaft with a measuring drum on the folding machine and means to limit the backward movement of the dial in resetting the same, said means comprising a slidable setting pin and a cam carried by the inner face of the dial, the setting pin having a depending portion disposed in the path of movement of the cam and the latter an inclined outer edge adapted to engage the bottom of and lift the setting pin out of the way when the dial is moving in its normal direction, but the other end of the cam adapted to engage the depending portion of the setting pin and limit the movement of the dial when turned in an opposite or retrograde direction.

In testimony whereof I affix my signature.

ROBERT J. DELLINGER.