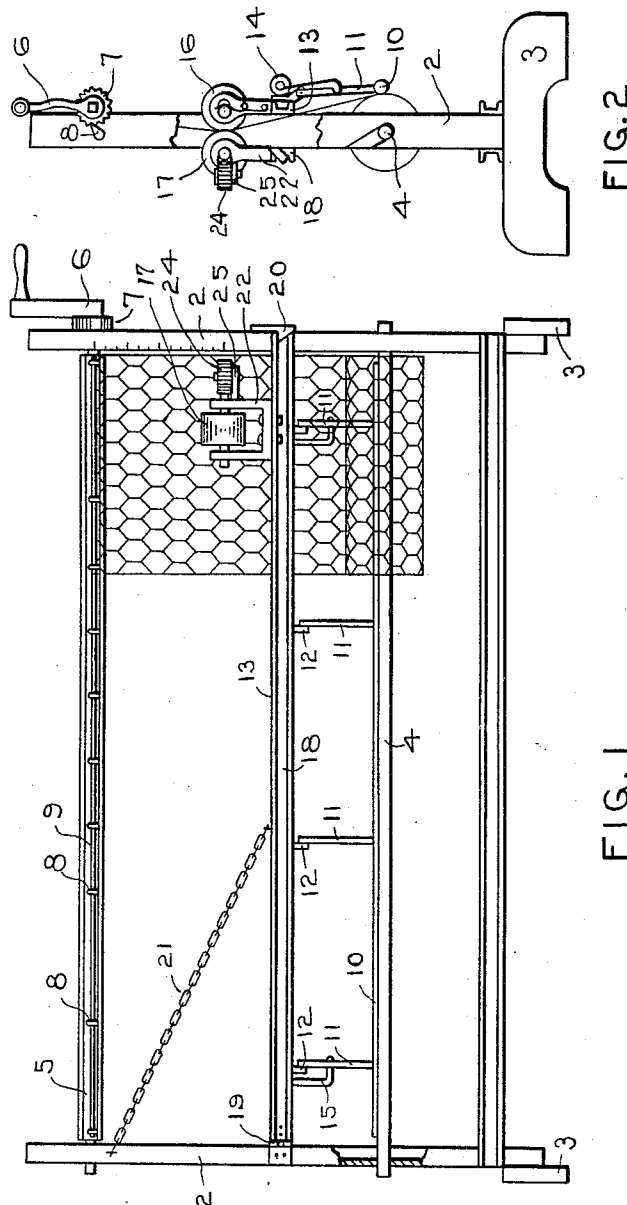


W. O. SOMMERFIELD.
WIRE FABRIC MEASURING DEVICE.
APPLICATION FILED MAR. 15, 1912.

1,052,100.

Patented Feb. 4, 1913.

2 SHEETS—SHEET 1.



WITNESSES

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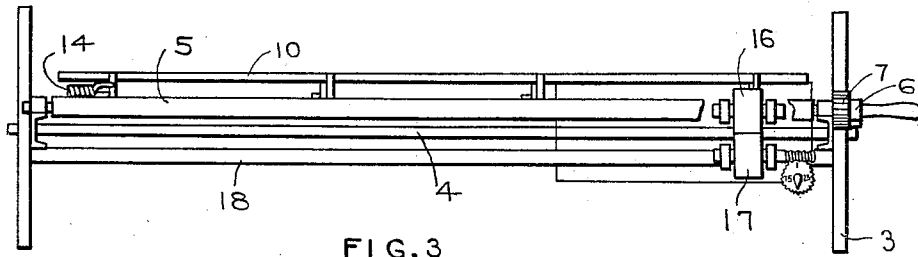


FIG. 3

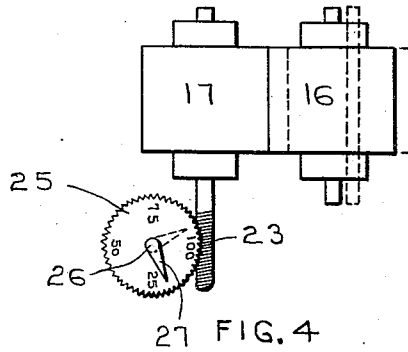


FIG. 4

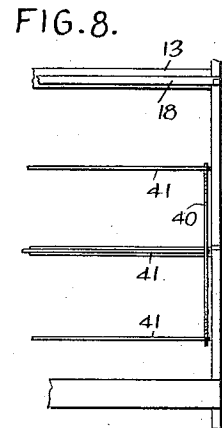


FIG. 8.

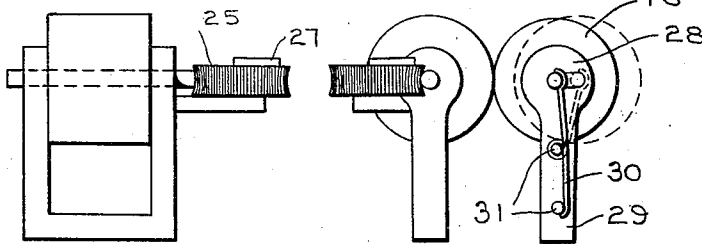


FIG. 5

FIG. 6

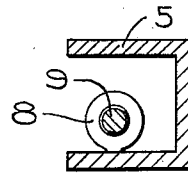


FIG. 7

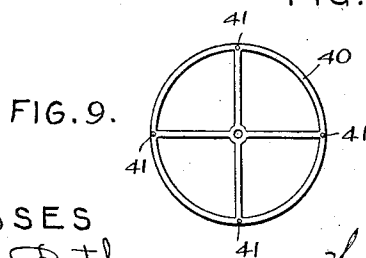


FIG. 9.

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UNITED STATES PATENT OFFICE.

WILLIAM O. SOMMERFIELD, OF EAST PEORIA, ILLINOIS.

WIRE-FABRIC-MEASURING DEVICE.

1,052,100.

Specification of Letters Patent.

Patented Feb. 4, 1913.

Application filed March 15, 1912. Serial No. 684,070.

To all whom it may concern:

Be it known that I, WILLIAM O. SOMMERFIELD, citizen of the United States, residing at East Peoria, in the county of Tazewell and State of Illinois, have invented certain new and useful Improvements in Wire-Fabric-Measuring Devices, of which the following is a specification.

My invention relates to a machine for measuring wire fabric.

More particularly my invention relates to a device for measuring wire fabric and particularly for use by store keepers in measuring out comparatively small quantities, as called for by customers.

My invention consists in the combination of a reel adapted to carry a plurality of fabric rolls of different width, mesh or style, a withdrawal or winding bar adapted to withdraw quantities of fabric from the rolls, as required by different sales, normally contacting rolls supported for adjustment relatively and positioned intermediate the reel and the winding bar, a measuring device associated with one of the rolls adapted to register the movement of the latter, a graduated scale plate serving as a measuring device from a centering point on the measuring rolls to a point above the same and terminating below the withdrawal bar, a suitable frame for supporting the withdrawal bar and one of the measuring rolls, a hinged bar connected with said frame supporting the other roll, means for holding the measuring rolls under yielding tension and a suitable drag adapted to be applied to the fabric to prevent a too ready withdrawal of the fabric from the rolls upon the reel.

In the drawings, Figure 1 is a front elevation of my device; Fig. 2 is an end elevation of the same; Fig. 3 is a top view of the same; Fig. 4 is a detail plan view of the measuring rolls and registering device; Fig. 5 is a detail view of one of the rolls showing the measuring device connected; Fig. 6 is an end view showing in detail the measuring rolls and measuring device, and illustrating the adjustable relation that pertains therebetween; Fig. 7 is a detail view showing the form of the fabric withdrawal bar; Fig. 8 is a side elevation showing a reel with a portion of the same broken away, and Fig. 9 is an end view of the reel.

In carrying out my invention, a single roll carrying member may be utilized as

shown in Fig. 1 or a reel adapted to carry a plurality of rolls, the form of such reel being shown in Fig. 8.

In the drawing, 2 represent vertical frame parts adapted to be supported on foot blocks or supports 3.

4 indicates a single roll carrying member or rod which is supported at its ends in frame portions 2.

5 is the reel bar disposed at the upper portion of the device and is adapted to be journaled in frame parts 2 and is provided with a crank 6 adapted to turn the same. The ratchet 7 is fixed upon this bar and interposed between crank 6 and the frame and a dog 8 is pivoted to the frame in position to engage ratchet 7, the same being provided to prevent bar 5 from backward turning. The form of bar 5 intermediate frame parts 2 is preferably that shown in Fig. 7 and may be made of channel iron. Within the channel portion of bar 5 are fixed at intervals along one of its side walls a plurality of eyes 8 and a small rod 9 is provided adapted to be passed through said eyes. In practice, the fabric being drawn from reel bar 4, the upper edge thereof is pressed into the channel of bar 5 until the eyes 8 pass through the meshes thereof, then rod 9 is passed through the eyes so as to bear over the fabric so as to secure it to said bar 5.

10 is a brake bar which may be formed of a bar running longitudinally of the machine provided with arms as 11 that are pivotally connected with studs 12 secured to the transverse frame part 13. This brake bar normally lies in contact with the surface of the roll on reel bar 4. A coil spring 14 is provided supported in connection with frame piece 13, the free end thereof extending into a hooked arm 15 adapted to engage one of the arms 11. In this manner, the brake bar 10 is held under yielding tension in contact with the fabric roll.

The particular mechanism adapted to perform the measuring function comprises a pair of rolls as 16 and 17 adapted to be positioned relatively in contact, as best shown in Fig. 3. These rolls may be provided with any suitable covering as for instance one or both of them with leather for the purpose of best promoting frictional engagement with the fabric adapted to be passed therebetween. Roll 17 is supported upon bar 18 by means of bracket 22 which is bolted to said bar. Bar 18 is hinged to frame piece

2 as at 19 and is adapted to be swung outwardly to permit the fabric to be passed upwardly for engagement with withdrawal bar 5, then to be swung into position to cause roller 17 in conjunction with roller 16 to engage the fabric. A dog or catch 20 is supported in connection with one of the frame parts 2 to engage the free end of said bar 18 to hold it in place and also a supporting chain as 21 is provided to supplement the hinged connection with frame 2 and to assist in maintaining the bar in proper position relative to the frame. Roller 17 is provided with pintles supported in bracket 22 and one of the pintles is extended beyond the frame and is provided with the worm or thread 23.

24 is a worm wheel supported to turn upon short arm 25 and is provided with indicator figures upon its face. The stud support 26 for worm wheel 24 is provided with an indicator finger as 27.

Roller 16 is supported in bracket arms 29, the same being provided with slots 28 therein, as shown in Fig. 6, in which figure only one of such slots is shown but a similar slot being provided in the other supporting arm for said roller.

30 are bar springs secured about a stud 31 at their middle portion and bearing against stop as 31^a at their lower ends, and their upper ends having a partial hook shape and adapted to bear against the spindle 31^b of roller 16. In Fig. 6, the spring appears on only one of said arms, but it is understood that a similar spring is placed upon the corresponding arm of said bracket. This manner of supporting roll 16 adapts it to yield under the influence of the varying thicknesses of material or parts thereof that are passed between rolls 16 and 17.

Referring particularly to Fig. 8, in which a reel is shown, it will be observed that this reel, which I have generally referred to as 40, carries several separate carrying bars as 41. In practice, different fabric rolls may be placed upon the different reel bars and as the reel turns readily, the fabric may be withdrawn from any one of the rolls desired and connection made with bar 5. The construction of this reel and its arrangement in connection with the device is so obvious that further detail description of the same is deemed unnecessary.

A is a graduated scale adapted to be fixed to the frame between the center of friction roll 17 and the withdrawal reel. This supplemental measuring device is necessary as the fabric must be cut off at some point between friction rolls 16 and 17 and the withdrawal reel, as will be readily understood.

I have shown herein my preferred form of embodiment of my invention but obviously it may be differently constructed and

the parts differently arranged to carry out the functions of my device. I desire, therefore, to cover not only the particular form disclosed, but all other forms and combinations that fall legitimately within the spirit of my invention.

What I claim is:—

1. In a wire fabric measuring device, in combination, a portable frame structure, a wire fabric supporting reel, a pivoted drag supported to bear against the surface of the fabric roll, a withdrawal reel comprising means for turning the same, a friction roll fixed upon the framework between the supporting and withdrawal reels, a bar hinged to the frame and provided with means for detachably securing the swinging end thereof to said frame, a friction roll on said bar disposed relatively to the friction roll on the frame to be swung into and out of engagement with the latter, and a measuring device connected with and driven from the friction roll on the frame.

2. In a device of the class described, in combination, a portable frame structure, a plural arm turnable roll support adapted to support rolls of different width upon different arms thereof, a pivoted drag supported to bear against the surface of the roll support, a withdrawal reel comprising a channel bar provided with a plurality of perforated studs seated therein and a rod adapted to be passed through the perforations in said studs, means for turning said withdrawal reel, a friction roll supported upon the frame intermediate the roll supporting and withdrawal reels, a bar hinged to the frame and provided with means for detachably securing the swinging end thereof to said frame, a friction roll upon said bar disposed relatively to the friction roll on the frame to be swung into and out of engagement with the latter and a measuring device connected to be operated from the movement of one of the friction rolls.

3. In a device of the class described, in combination, a portable frame structure, a plural arm turnable roll support adapted to support rolls of different width upon different arms thereof, a pivoted drag supported to bear against the surface of the roll support, a withdrawal reel comprising a channel bar provided with a plurality of perforated studs seated therein, and a rod adapted to be passed through the perforations in said studs, means for turning said withdrawal reel, a friction roll supported under yielding tension upon the frame intermediate the roll supporting and withdrawal reels, a bar hinged to the frame and provided with means for detachably securing the swinging end thereof to said frame, a friction roll upon said bar disposed relatively to the friction roll on the frame to be swung into and out of engagement with

the latter, and a measuring device connected to be operated from the movement of one of the friction rolls.

4. In a device of the class described, in
5 combination, a portable frame structure, a plural arm turnable roll support adapted to support rolls of different width upon different arms thereof, a pivoted drag supported to bear against the surface of the roll
10 support, a withdrawal reel comprising a channel bar provided with a plurality of perforated studs seated therein and a rod adapted to be passed through the perforations in said studs, means for turning said
15 withdrawal reel, a friction roll supported under yielding tension upon the frame intermediate the roll supporting and withdrawal reels, a bar hinged to the frame and provided with means for detachably secur-

ing the swinging end thereof to said frame, 20
a friction roll upon said bar disposed relatively to the friction roll on the frame to be swung into and out of engagement with the latter, a measuring device connected to
be operated from the movement of one of 25
the friction rolls, and a supplemental scale measure interposed between the center of the friction roll and the withdrawal reel to supplement the measuring by said friction
rolls and to measure fabric beyond said rolls 30
at the point of cutting the fabric between said friction rolls and the withdrawal reel.

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM O. SOMMERFIELD.

Witnesses:

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T. D. TEFFT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."