

No. 871,645.

PATENTED NOV. 19, 1907.

P. SPERLING.
MACHINE FOR PRINTING MEASUREMENTS ON PIECES OF MATERIAL.

APPLICATION FILED JAN. 15, 1908.

3 SHEETS—SHEET 1.

FIG. 1.

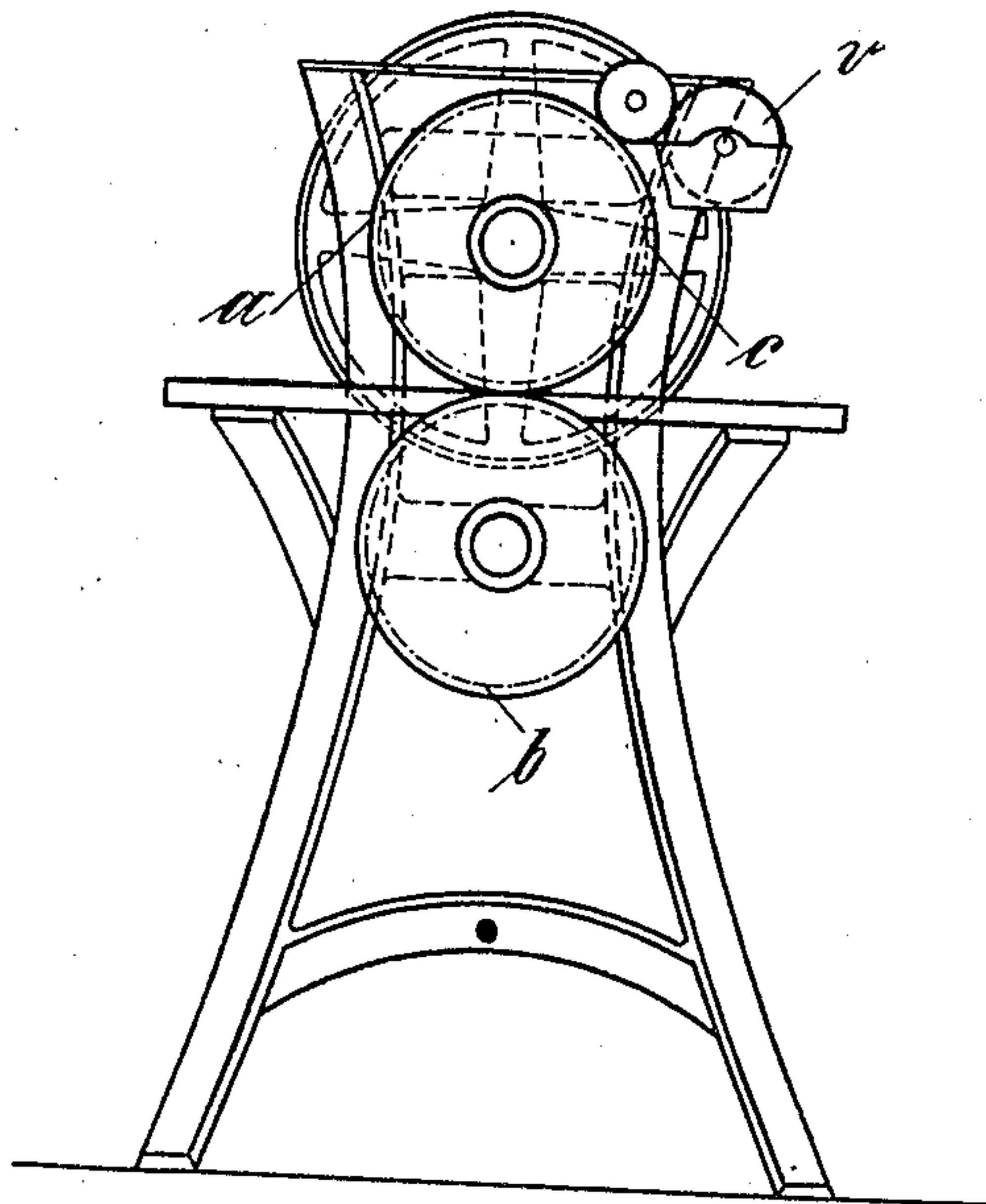
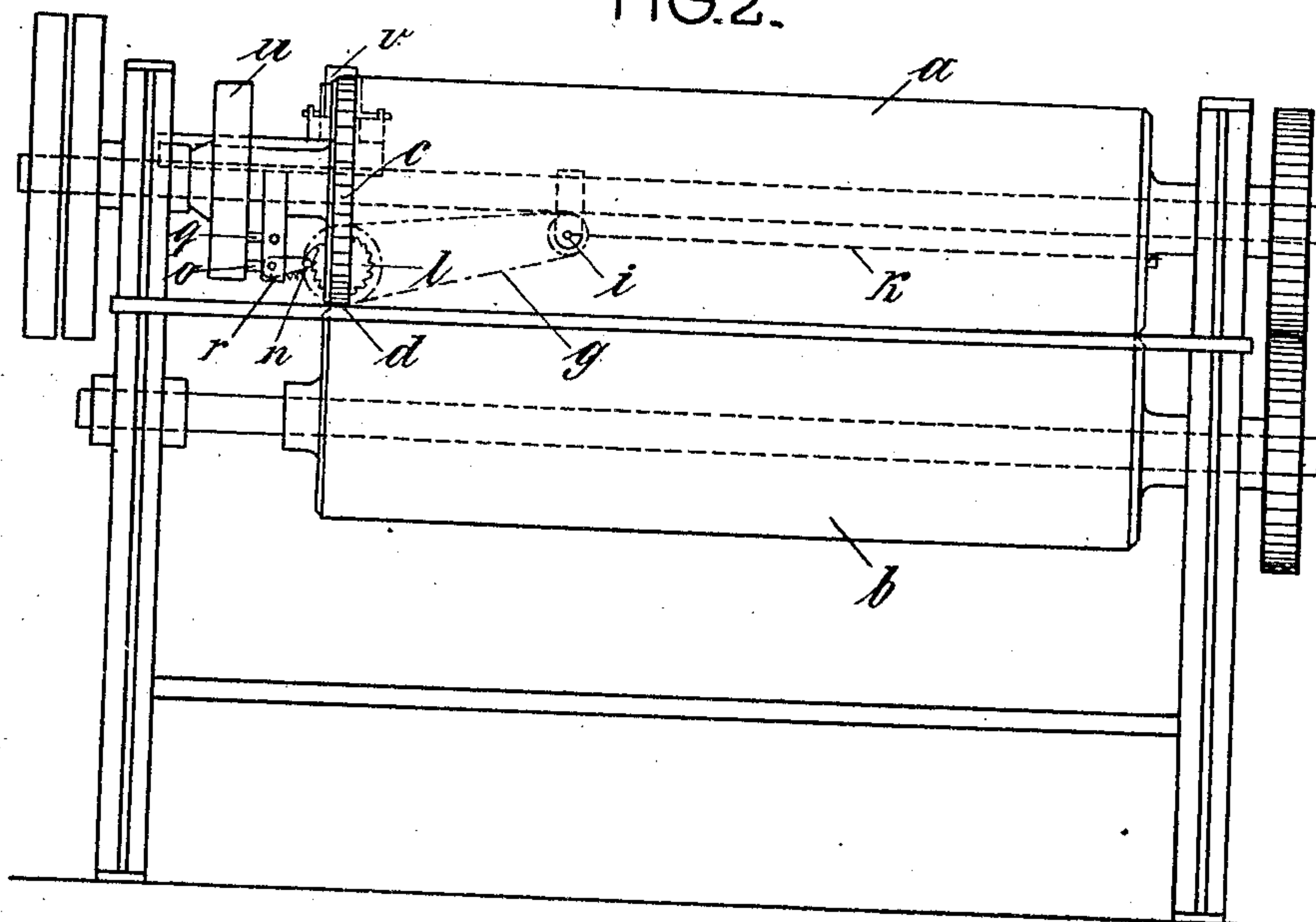


FIG. 2.



W. Thomas,
Charles Smith
Vanderweerde

Inventor:
Peter Sperling
by *James M. Smith*
Attorney

No. 871,645.

PATENTED NOV. 19, 1907.

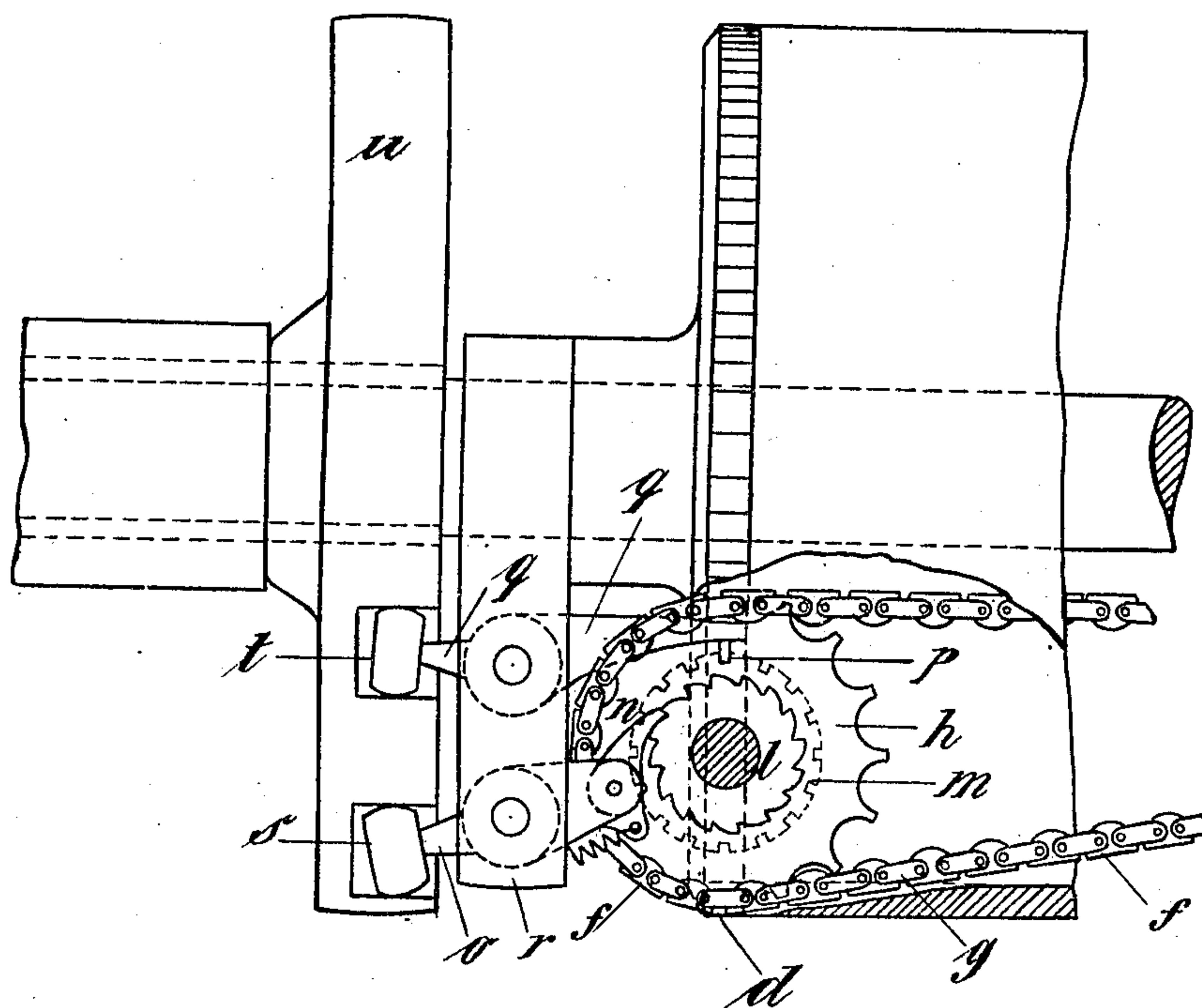
P. SPERLING.

MACHINE FOR PRINTING MEASUREMENTS ON PIECES OF MATERIAL.

APPLICATION FILED JAN. 15, 1906.

3 SHEETS—SHEET 2.

FIG. 3.



Witnesses.
Charles Smith
Emil Wierck

Inventor
Peter Sperling
by Frederick M. Munk
Attorney

No. 871,645.

PATENTED NOV. 19, 1907.

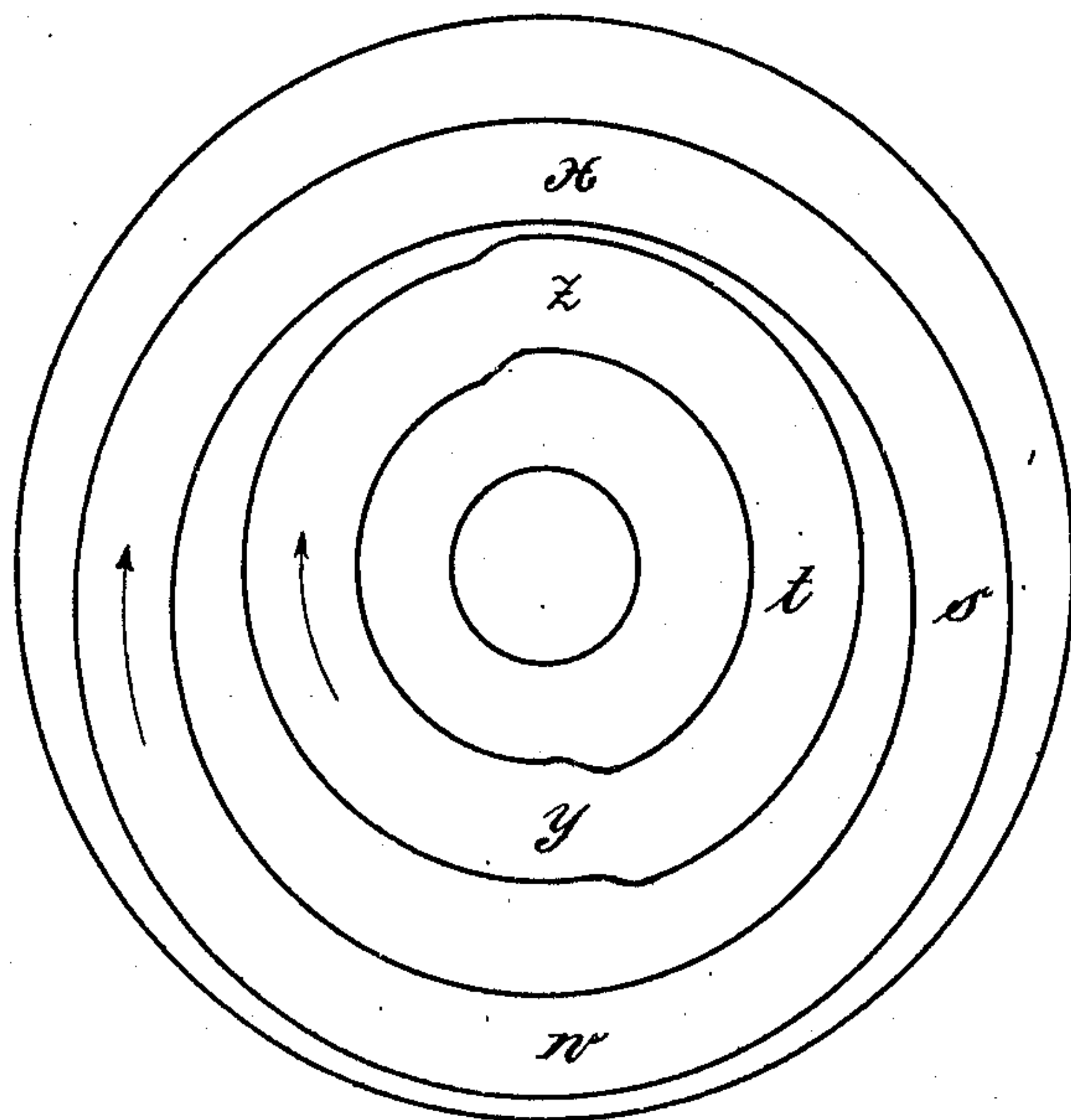
P. SPERLING.

MACHINE FOR PRINTING MEASUREMENTS ON PIECES OF MATERIAL.

APPLICATION FILED JAN. 15, 1906.

3 SHEETS—SHEET 3.

FIG. 4.



Witnesses:
Charles Smith
Vandersteene

Inventor:
Peter Sperling
by *Frederick M. Wood*
Attorney

UNITED STATES PATENT OFFICE.

PETER SPERLING, OF NEUNKIRCHEN, GERMANY.

MACHINE FOR PRINTING MEASUREMENTS ON PIECES OF MATERIAL.

No. 871,645.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed January 15, 1906. Serial No. 296,157.

To all whom it may concern:

Be it known that I, PETER SPERLING, a citizen of the German Empire, and resident of Neunkirchen, Germany, have invented new and useful Improvements in Machines for Printing Measurements on Pieces of Material, of which the following is a specification.

This invention relates to machines in which pieces of cloth, fabric or other material are measured by being passed between a measuring-drum and a feeding-roller, the measurements being at the same time printed on the material. The construction of such machines is improved by having an arrangement for printing the sum of the units measured.

In the accompanying drawings the improved machine is shown in Figure 1 in an end view and in Fig. 2 in a front view. Fig. 3 shows, on a larger scale, the end of the measuring-drum, which is provided with the printing-device. Fig. 4 represents in front view the guide-disk for actuating the sum-printing-device.

The material to be measured and printed is passed, in the well known manner, between the feeding-roller *b* and the measuring-drum *a*. The measuring-drum *a* is furnished on the left-hand side with a ring of types *c* for printing the units of measurement on the fabric. This ring is, for example, provided with the types from 1 to 99, indicating centimeters, and has an aperture *d* at the place of the 100. Through this aperture *d* pass successively the types *f* of a type-chain *g* for printing the sums of the centimeters. The type-chain *g* is guided over a sprocket-wheel *h* arranged in the aperture *d*, and over a guide-roller *i* located at a suitable place inside the measuring-drum *a* and adapted to be adjusted by means of a screw-rod *k* from outside the drum for tightening the type-chain.

On the axle of sprocket-wheel *h* a ratchet-wheel *l* and a toothed-wheel *m* are mounted. A detent *p* fixed to the front end of a lever *q* engages with toothed-wheel *m* and a spring-influenced pawl *n*, pivoted in the free end of a lever *o*, engages with ratchet-wheel *l*. The levers *o* and *q* are pivoted in a fork *r*, which is fixed to the axle of the measuring-drum *a*. The other ends of the levers *o* and *q* are guided in grooves *s* and *t* of a guide-disk *u* which is fixed to the frame of the machine. The groove *s* is eccentric and the groove *t* is

composed of two halves of different diameter which are connected by the inclines *y*, *z*.

The machine operates as follows:—When the measuring-drum *a* is rotated the types 1 to 99 are printed on the edge of the material passed between drum *a* and roller *b*. When the first revolution of the drum is terminated the first type *f* of type-chain *g* is printed through aperture *d*. The levers *o* and *q* participate in the rotation of drum *a*, sliding with their outer ends in the grooves *s* and *t* of guide-disk *u*. The ratchet-lever *o* is so pivoted that in consequence of the eccentricity of groove *s* while the end of said ratchet lever passes through part *w* to *x* of said groove, the ratchet *n* is pulled out of engagement with ratchet-wheel *l* and moved over the same for the length of one tooth, detent-lever *q* being kept during that time in engagement with toothed-wheel *m*. When the end of the detent-lever *q* reaches the incline *z* the lever is swung so that the detent *p* is pulled out of engagement with toothed-wheel *m* and the sprocket-wheel is now free, to follow the movement of ratchet-wheel *l*, which is rotated for one tooth by lever *o*, traveling through the second part of groove *s*. Thus the type-chain *g* is moved for the space of one type *f*. The incline *y* of groove *t* returns the detent-lever to its position for locking the toothed-wheel *m*.

The inking-device *v* may be of any suitable construction.

The printing-device may be arranged at either end of drum *a*, or one printing-device may be provided at each end of the drum, in which case the types of the two printing devices may be arranged in opposite direction.

Having now particularly described and ascertained the nature of my said invention, I declare that what I claim as my invention and desire to secure by Letters Patent, is:—

An improved machine for printing measurements on pieces of cloth or other material, comprising in combination with the sprocket-wheel for the type-chain for the hundred types, a toothed-wheel mounted on the axle of the sprocket-wheel, a ratchet-wheel mounted on the axle of the sprocket-wheel, a detent-lever engaging with the toothed-wheel, a pawl-lever engaging with the ratchet-wheel, a fork fixed to the axle of the measuring-drum, serving as pivot for the levers, a disk fixed to the frame of the machine provided on its inner surface with an eccentric

guide-groove for the end of the pawl-lever
and with an eccentric guide-groove for the
end of the detent-lever, said latter groove be-
ing composed of two halves of different di-
5 ameter, connected by inclines, substantially
as described and shown and for the purpose
set forth.

In witness whereof I have hereunto set my
hand in presence of two witnesses.

PETER SPERLING.

Witnesses:

THEODOR MÜLLER,
WALTER HÄUSING.