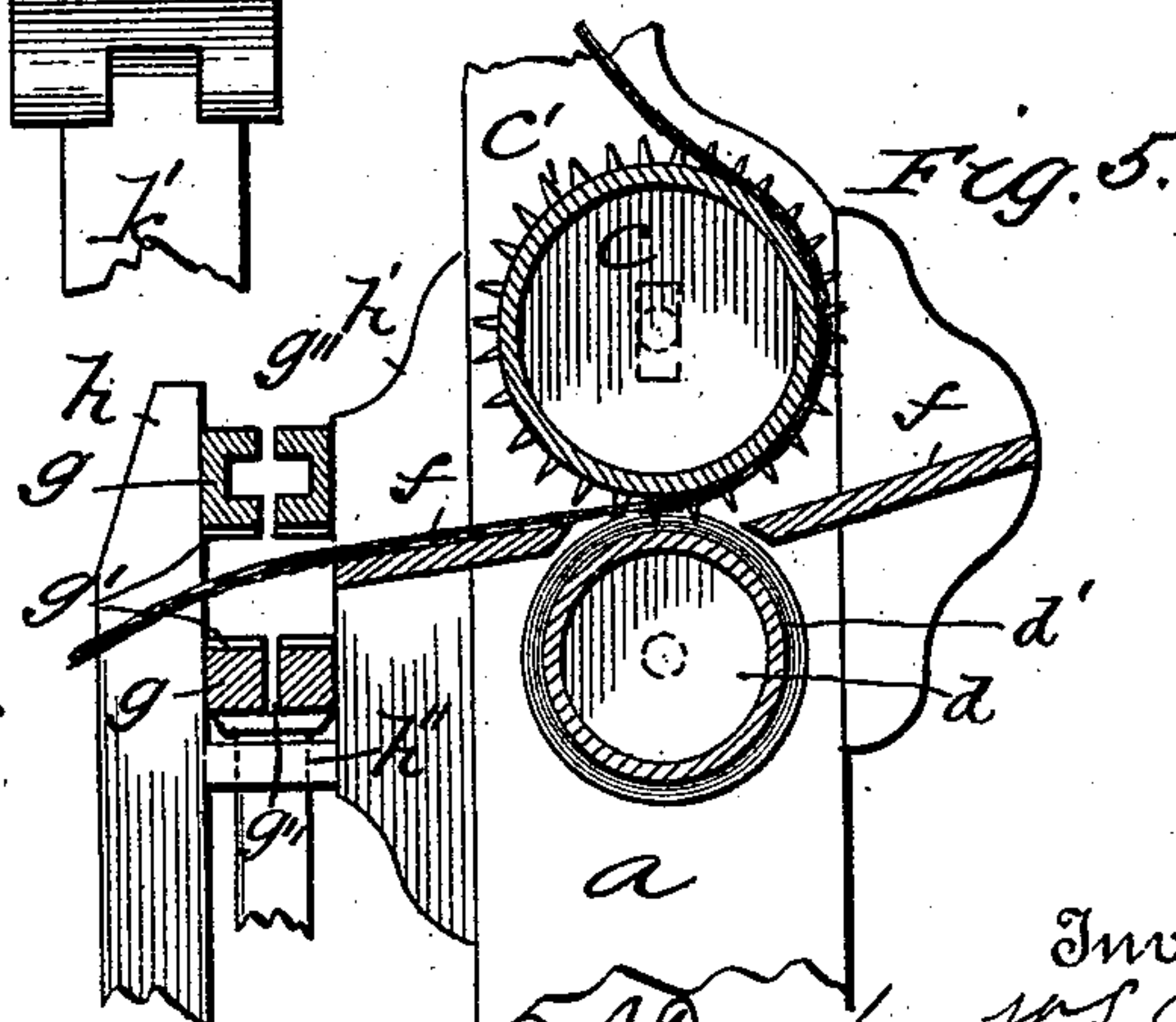
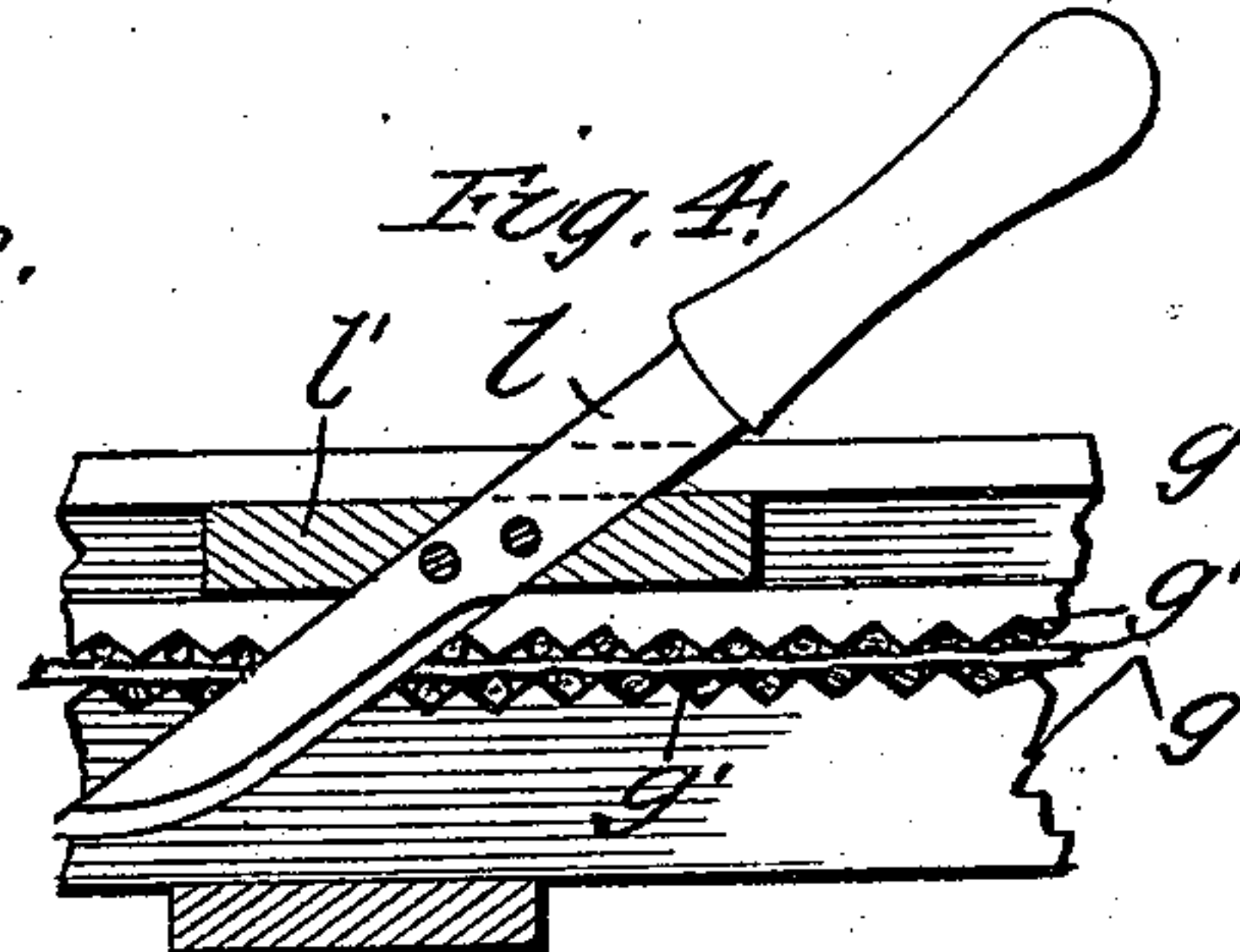
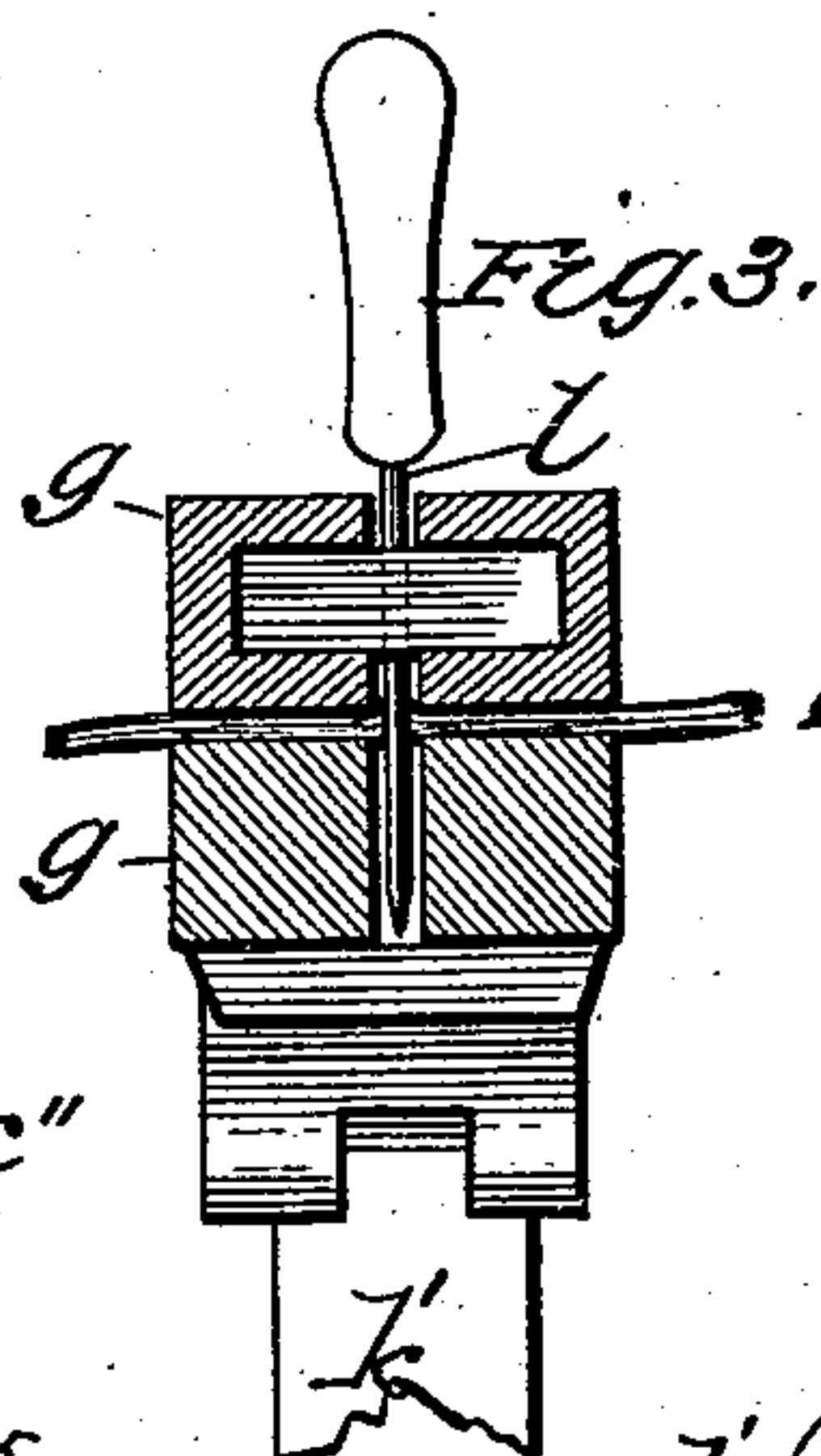
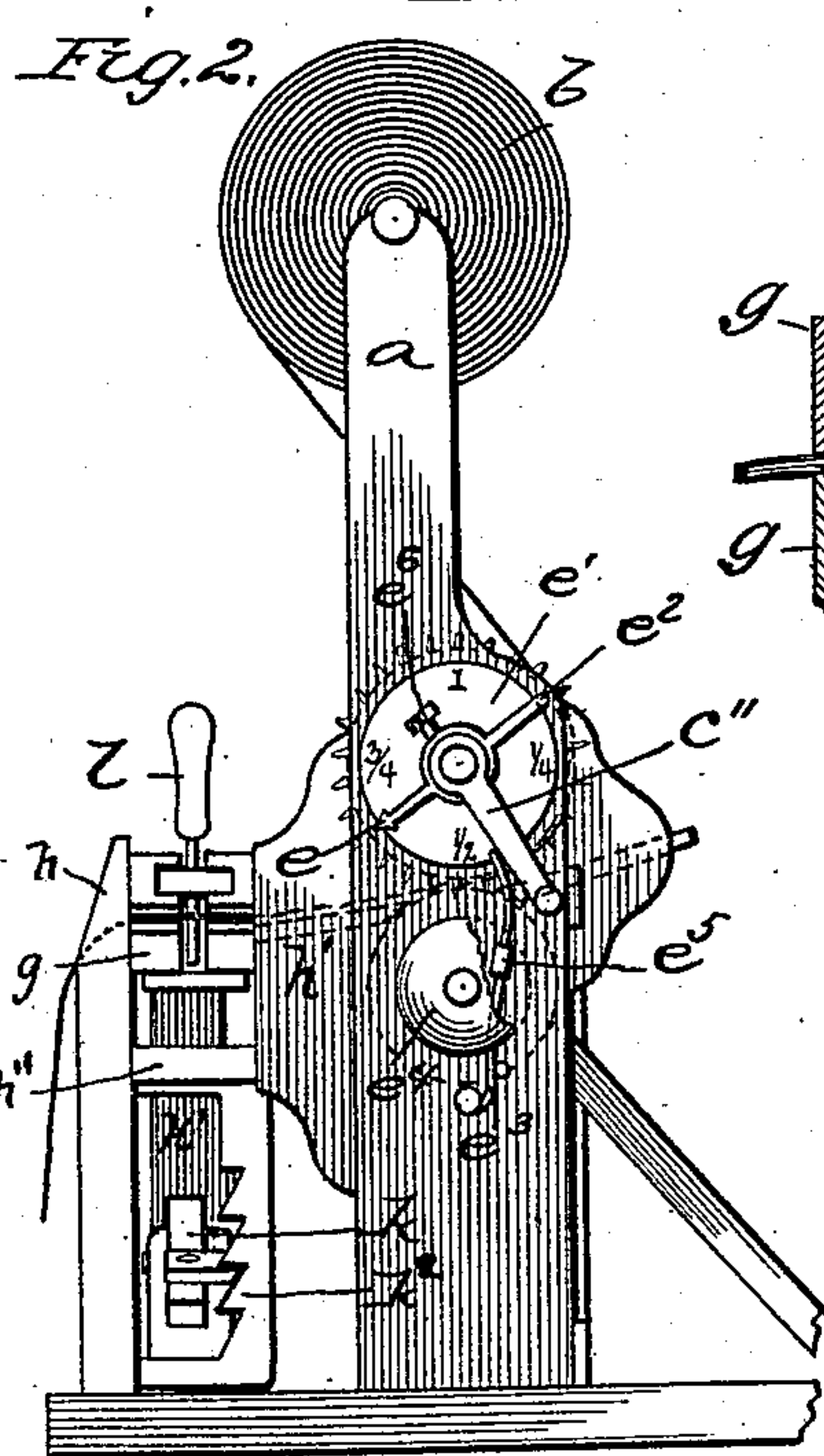
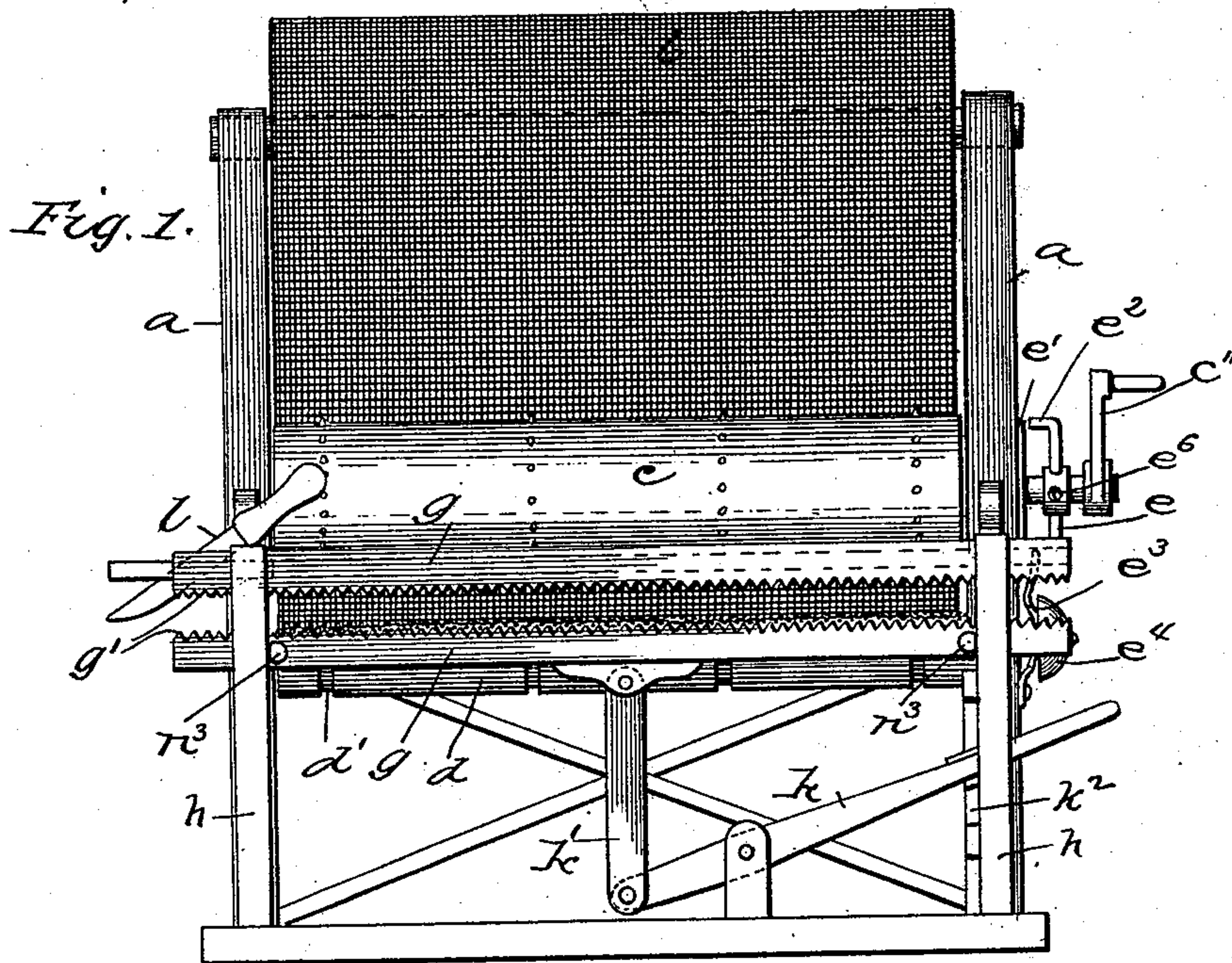


(No Model.)

D. J. DENTON, W. L. SIMPSON & S. W. DENTON.
BAGGING MEASURING MACHINE.

No. 485,491.

Patented Nov. 1, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID J. DENTON, WILLIAM L. SIMPSON, AND SAMUEL W. DENTON, OF
BRONWOOD, GEORGIA.

BAGGING-MEASURING MACHINE.

SPECIFICATION forming part of Letters Patent No. 485,491, dated November 1, 1892.

Application filed July 18, 1892. Serial No. 440,418. (No model.)

To all whom it may concern:

Be it known that we, DAVID J. DENTON, WILLIAM L. SIMPSON, and SAMUEL W. DENTON, citizens of the United States, residing at Bronwood, in the county of Terrell and State of Georgia, have invented certain new and useful Improvements in Machines for Measuring Bagging, &c., of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a front elevation of our machine complete; Fig. 2, a side elevation of the same; Fig. 3, a transverse sectional view of the clamp, showing the severing-knife; Fig. 4, a longitudinal vertical sectional view of a portion of the clamp, and Fig. 5 a vertical cross-section of the measuring-rollers and the clamping devices.

The nature and objects of this invention fully appear in the course of this specification.

In the drawings, *a a* designate the main supporting uprights, the upper ends of which are slotted for the reception of the journals of the removable shaft *b*, carrying the bagging to be unwound and measured and cut. The hollow measuring-rollers *c d* are journaled one above the other at points below the bagging-shaft, the upper roller *c* being loosely supported in its bearings, so that its weight may rest lightly upon the bagging as the same passes between the rollers, thereby permitting it to adjust itself to material of various thickness. The upper roller is provided with several annular series of spikes *c'* in its periphery, which spikes pass through the bagging and enter corresponding annular grooves *d'* in the lower roller, so as not to come in contact with the same. This roller *c* is preferably one yard in circumference and on one end of its shaft is secured an operating-crank *c''*, and an indicating-arm *e*, which indicates on a stationary dial *e'*, secured on one of the main uprights, the fraction of a yard. Secured integrally to the indicating-arm *e* is another radial arm *e²*, projecting in a diametrically-opposite direction from said arm *e*, which arm *e²* is adapted to engage a spring-arm *e³*, secured on the adjacent upright, and sound an alarm-bell *e⁴* every time the indicating-arm indicates that a yard has passed between the

rollers. The spring-arm is provided with a hammer *e⁵*, which strikes the gong when the arm is sprung to one side by the arm *e²* and then released. The arms *e²* and *e* are adjustably secured on the shaft by a set-screw *e⁶*, so that they may be properly set. The bagging is passed in between the rollers from the rear side, and it is guided therein by an inclined board *f*, extending across between the standards behind the rollers. Another inclined supporting-board *f* is secured between the standards in front of the rollers to receive the material as it comes from the rollers and guide it between the clamp of the severing devices. This clamp consists of an upper stationary jaw *g'*, extending entirely across the machine and secured between supplemental standards *h* and blocks *h'*, secured to the main standards, and a lower jaw *g*, which is similarly constructed to the upper jaw and is kept in alignment therewith and guided by said standards *h* and blocks *h'*. When the lower jaw is down, its ends rest on cross-pieces *h''*, secured between the standards *h* and blocks *h'*, and its endwise movement is prevented by pins *n³*, projecting from its front side and bearing against the inner sides of the standards *h*. The lower jaw is raised and lowered by means of a foot-lever *k*, pivoted under the jaws upon the base of the machine and pivotally connected at its inner end by a vertical bar *K'* to the center of the lower jaw, this lever being held in its adjusted positions by a vertical notched bar *k²* at one end of the machine and with whose notches a plate on the lever engages. The upper jaw is longitudinally divided centrally into two parts, and the parts are separated far enough for the passage of a severing-knife *l*, which is secured rigidly to a block *l'*, sliding loosely in grooves formed in the adjacent faces of the parts of the jaw. The knife is set in the block at an oblique angle, so that it will exert a draw cut on the clamped fabric as it is drawn across the machine. The lower jaw is also split longitudinally and the parts separated to form a slot for the passage of the lower part of the knife. The adjacent faces of the jaws are provided with transverse angular ribs or serrations *g'*, the serrations of the upper jaw coming opposite the

depressions in the lower jaw, as shown in Fig. 4, whereby the fabric will be firmly clamped and held during severance.

One of the main difficulties in handling bagging material—such as jute and cotton bagging—arises from its being so loosely woven that it cannot be measured by the ordinary friction-rollers. It is so soft and loose that in passing through ordinary friction-rollers it is more or less stretched or pressed out by the rollers and afterwards it contracts to its original length, for which reason its accurate measurement is impossible with friction-rollers. This objection is overcome by the within-described arrangement, in which the measuring-roller rests lightly on the fabric and its spikes draw the same between the rollers without stretching or compression, the spikes passing through the fabric and entering grooves in the lower roller. When the desired quantity of material has been measured off, the part measured having passed between separated jaws, the operator presses on the lever with his foot and forces the lower jaw up against the upper jaw, thereby firmly clamping the fabric at the point at which it is to be cut off, the lever being held in a depressed position by the notched bar. In severing the fabric the operator simply grasps the knife by its handle and draws it across the machine, as is evident. The advantage of the transverse serrations is that they grasp the fabric and prevent it slipping or moving while being cut, the warp-threads lying in the transverse grooves and being held firmly therein by the opposite projections. This advantage has been found especially valuable in cutting loosely-woven fabrics, such as jute and cotton bagging, it having been found impossible to clamp these fabrics properly with smooth-faced jaws on account of their looseness and varying thickness.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a measuring and cutting machine for

bagging, &c., the combination of a frame, a pair of measuring-rollers, a clamping device consisting of a pair of jaws between which the fabric passes as it is measured off, one or both of said jaws being provided with transverse serrations in its clamping-face for the reception of the warp-threads of the fabric, whereby slipping or gathering of the fabric while being cut is avoided, substantially as described.

2. In a fabric-cutting machine, the combination of a pair of jaws and means for bringing them together, said jaws being provided with transverse serrations in their adjacent faces, the projections of one jaw coming opposite the cut-out portions of the other, whereby the fabric will be securely clamped and prevented from gathering or slipping while being cut, and a sliding knife carried by one of the jaws, substantially as described.

3. The combination of a frame, a bagging-roller, and measuring-rollers journaled thereon, suitable indicating and alarm mechanism, transverse boards for guiding the fabric between the roller and supporting it as it issues therefrom, a clamping device consisting of a pair of jaws slotted longitudinally and vertically and transversely serrated on their adjacent faces, an inclined sliding knife rigidly secured to a block working in the upper stationary jaw, provided with a handle projecting upwardly between the parts of the upper jaw, means for guiding and supporting the lower jaw, an operating-lever pivotally connected to the lower jaw midway its length, and means for locking this lever, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

DAVID J. DENTON.
WILLIAM L. SIMPSON.
SAMUEL W. DENTON.

Witnesses:

S. M. THOMPSON,
JAS. C. SIMPSON.