

No. 708,172.

Patented Sept. 2, 1902.

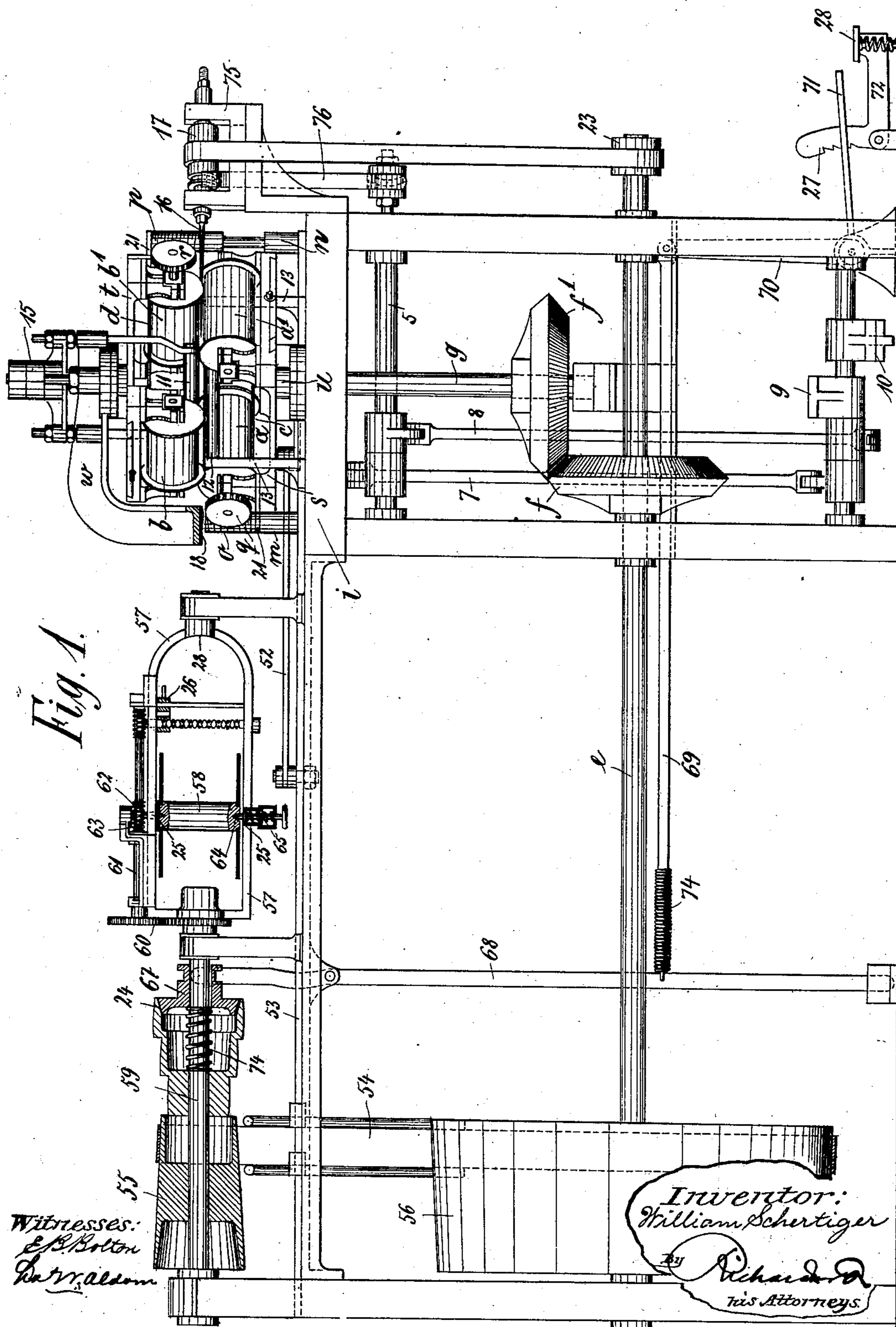
W. SCHERTIGER.

SPINNING MACHINE FOR CHEWING TOBACCO.

(Application filed Apr. 21, 1902.)

(No Model.)

3 Sheets—Sheet 1.



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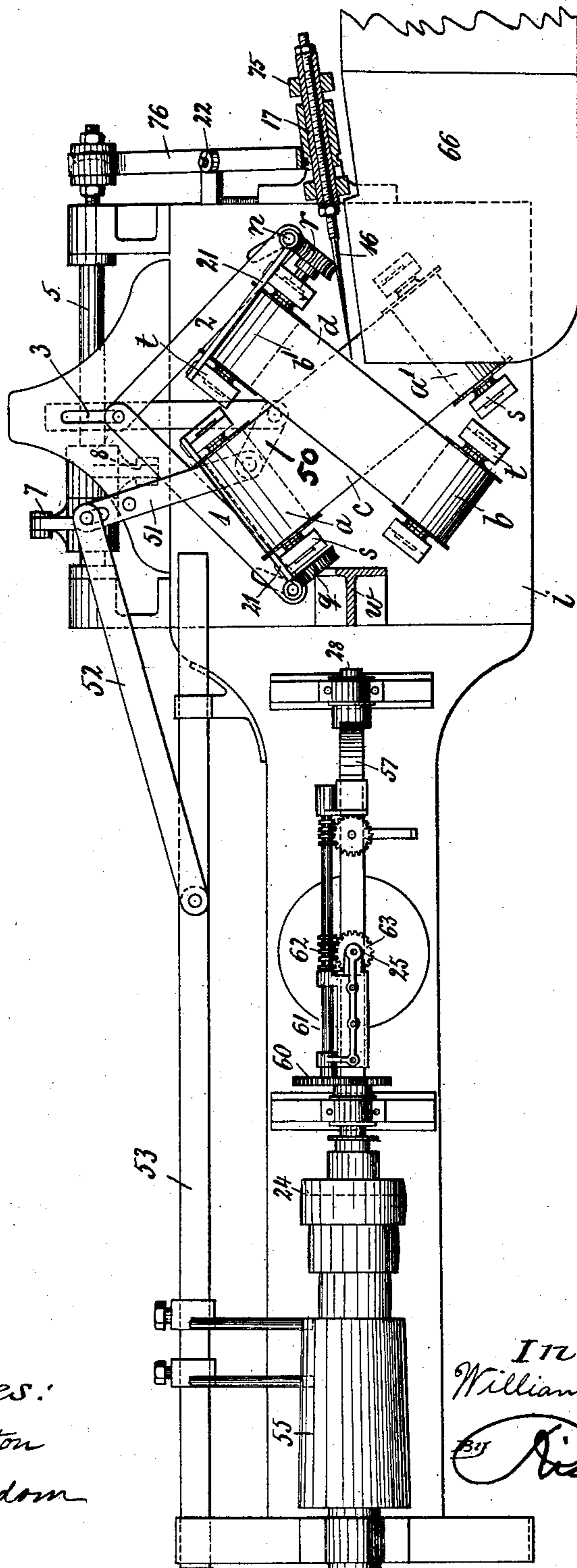
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3 Sheets—Sheet 2.

Fig. 2.



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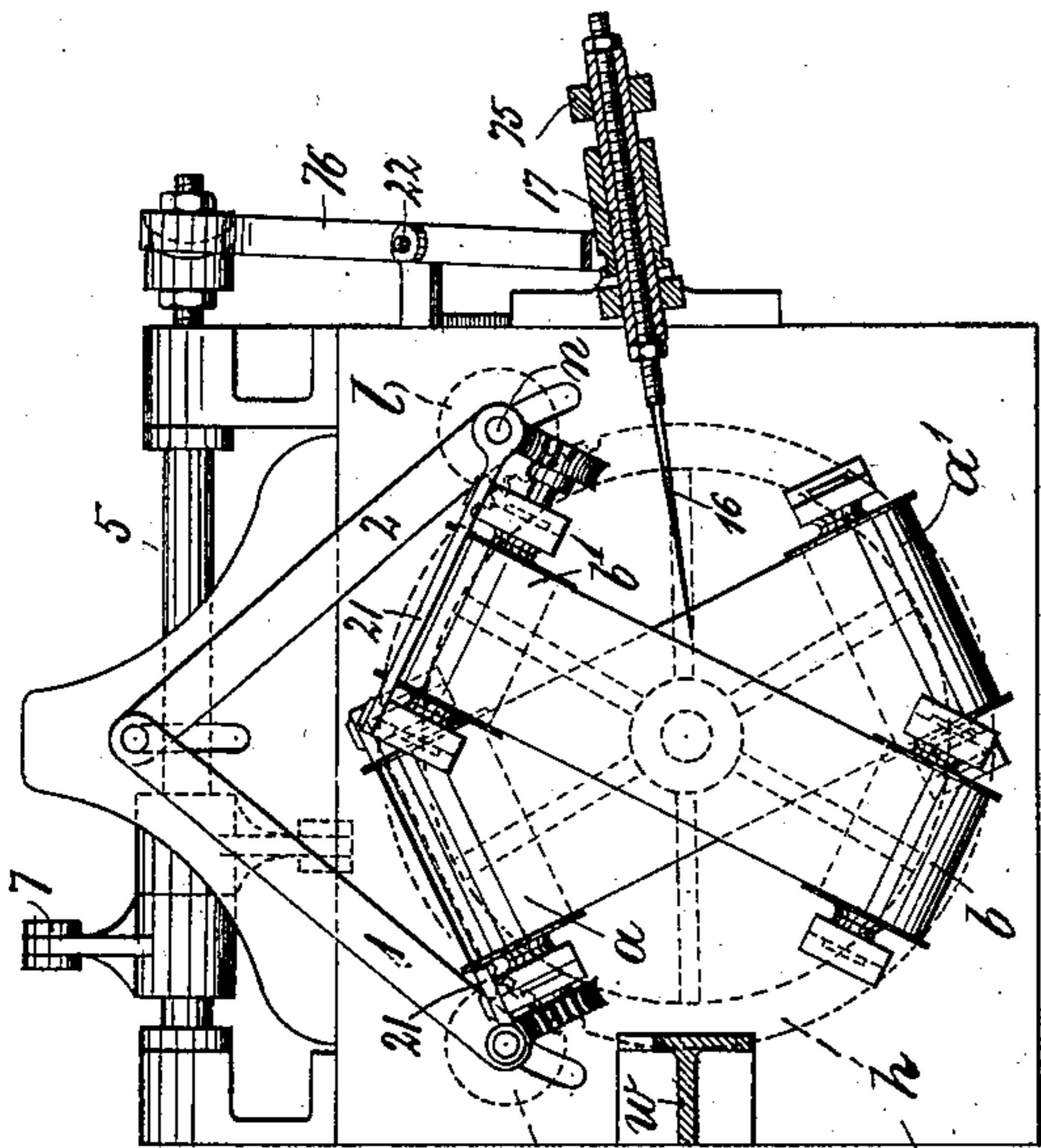


Fig. 4.

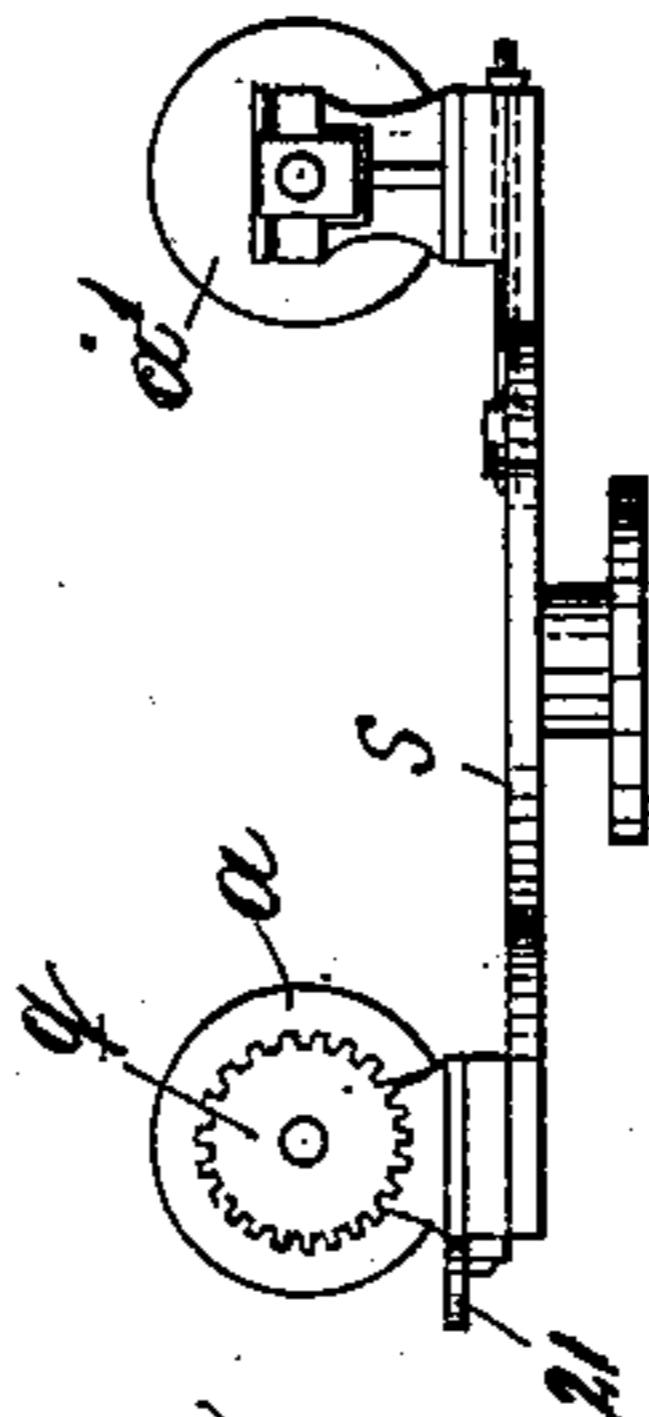


Fig. 5.

Fig. 6.

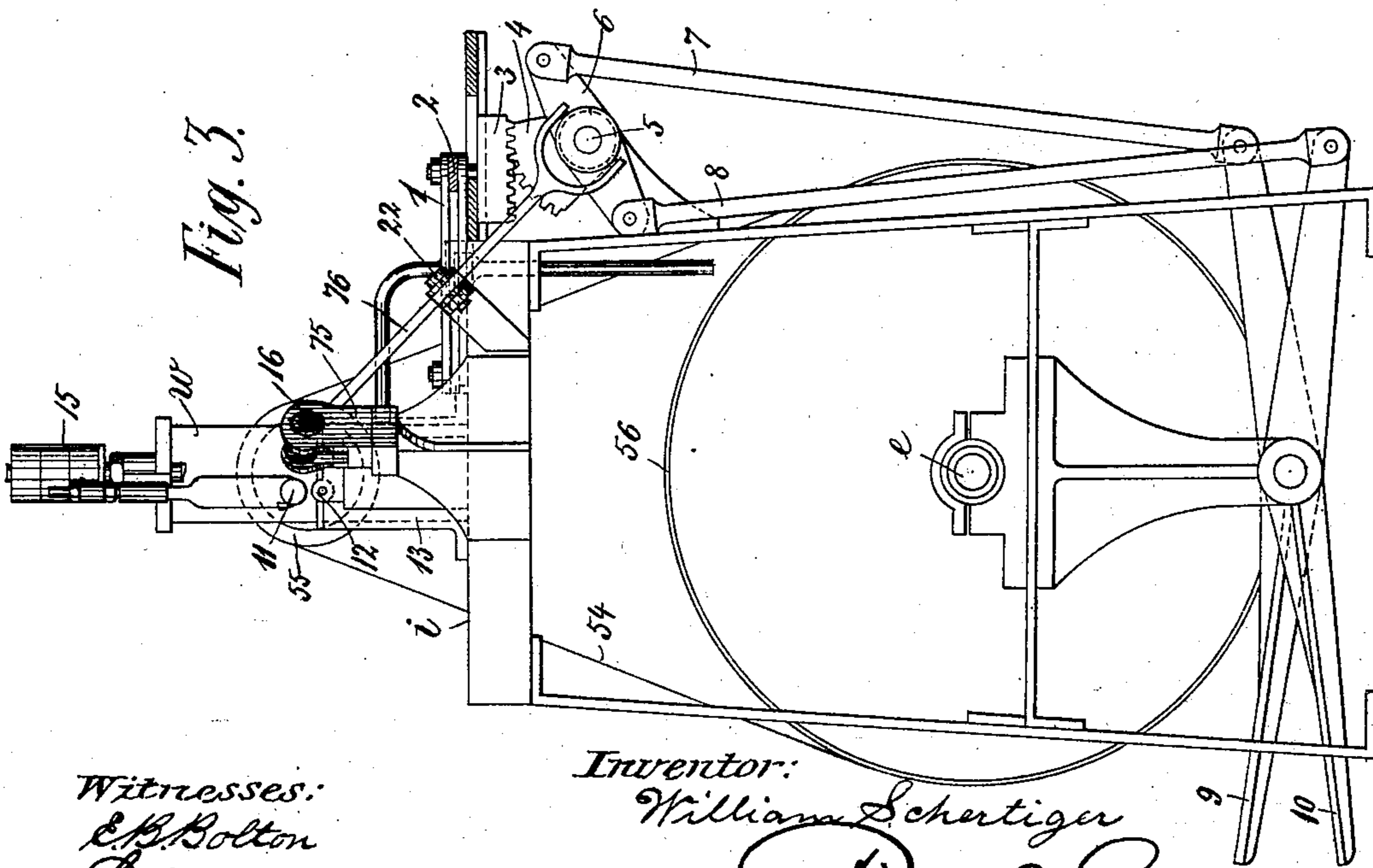
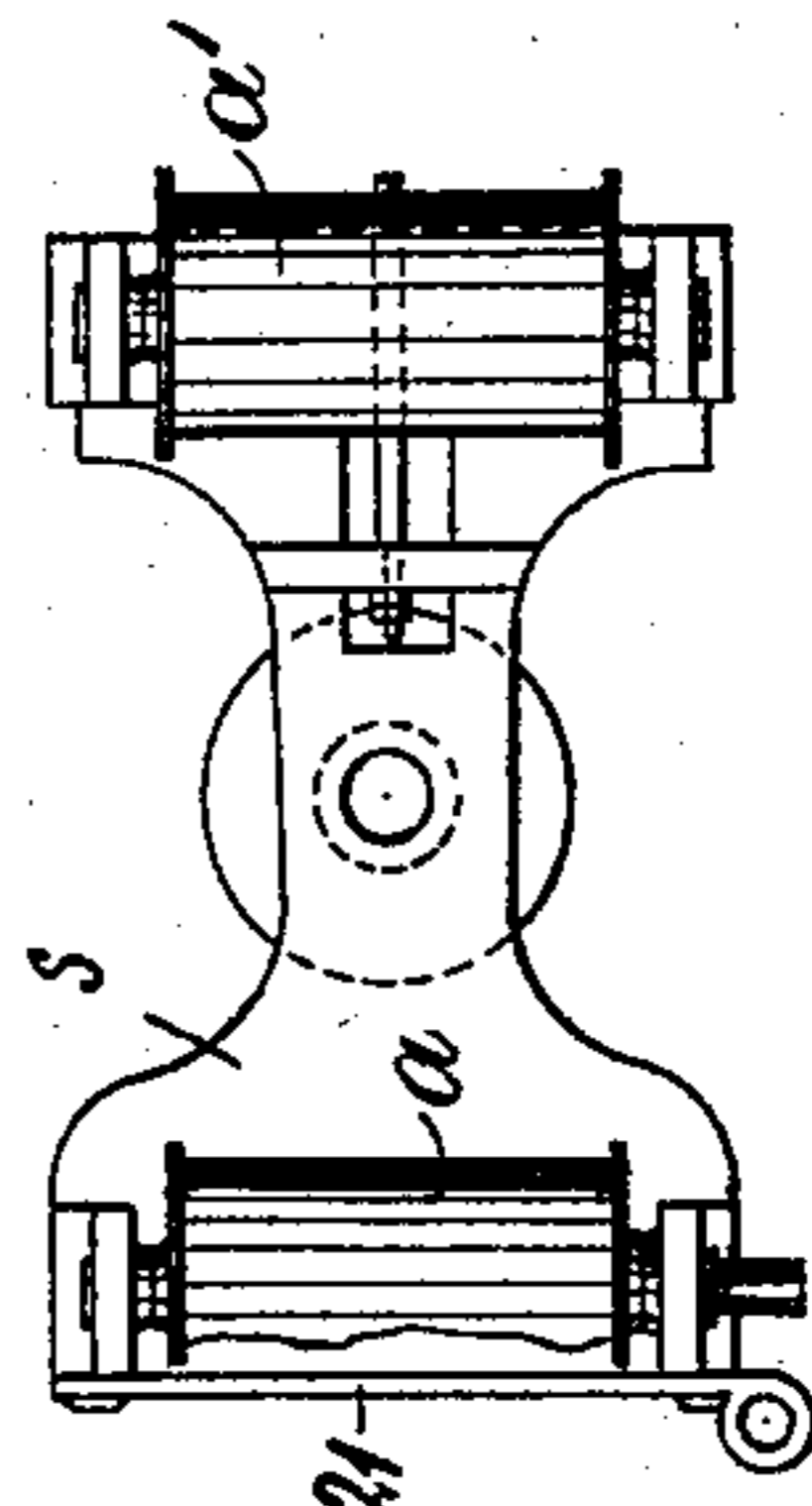


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM SCHERTIGER, OF AALBORG, DENMARK.

SPINNING-MACHINE FOR CHEWING-TOBACCO.

SPECIFICATION forming part of Letters Patent No. 708,172, dated September 2, 1902.

Application filed April 21, 1902. Serial No. 104,088. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SCHERTIGER, engineer, a subject of the King of Denmark, residing at Vesterbro 9-11, Aalborg, Denmark, have invented certain new and useful Improvements in Spinning-Machines for Chewing-Tobacco, (for which I have applied for a patent in Denmark and Germany, which applications are dated October 11, 1901, and October 16, 1901,) of which the following is a specification.

The present invention refers to a spinning-machine for manufacturing the finest kind of chewing-tobacco, the so-called "lady-twist."

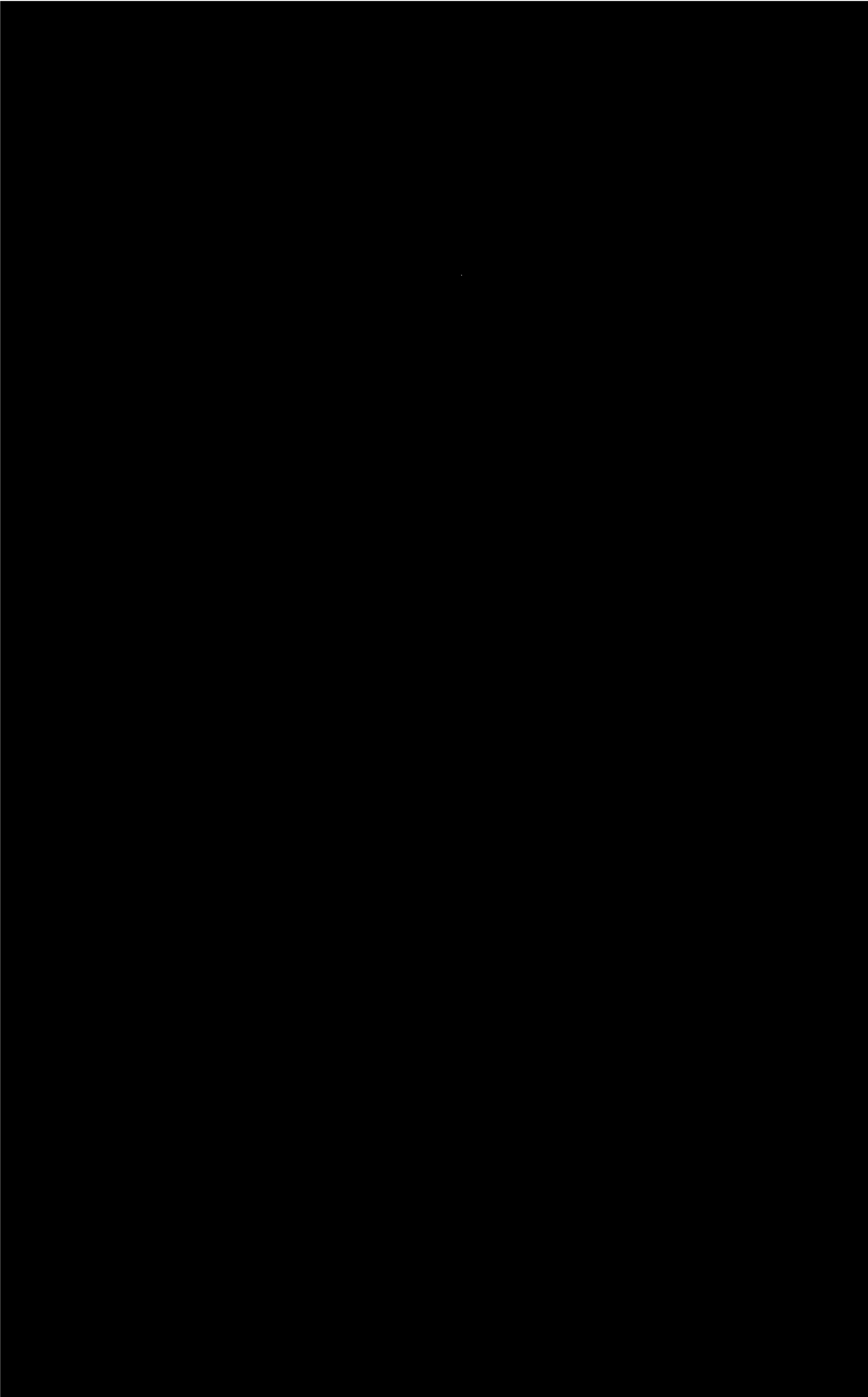
The chewing-tobacco is made out of tobacco-leaves which the workman brings to a rotating conical needle that catches them and around which they are wound. The string of tobacco thus formed is then carried between two endless belts running over drums and crossing each other and between which it is rolled and spun. These belts cross each other at an angle which can be varied by a special arrangement, so that the speed at which the string is brought forward and the tightness to which it is spun can be varied. The string of tobacco having passed the belts, it is brought into the coiler, where it is coiled, while it at the same time receives a further twisting. The coiler consists of a drum which turns simultaneously around its longitudinal axis and its transverse axis. The revolving speed of the drum can by a special arrangement be adjusted according to the speed at which the string is brought forward by the belts, the belt which transmits the rotation from the main shaft to the coiler running upon conical sheaves, upon which it can be moved sidewise by means of a lifting-lever, which is connected with the arrangement by means of which the angle of the belts is varied, so that this variation and the variation of the coiler's speed take place simultaneously.

The invention is shown on the accompanying drawings, wherein Figure 1 represents the whole machine partly in section and seen in side elevation. Fig. 2 shows the machine seen in top elevation. Fig. 3 represents the machine seen from the right, the drums and belts being removed. Fig. 4 shows the drums and the belts in another position than in Fig.

2. Fig. 5 is the lower bearing-fork seen in side elevation, Fig. 6 the same seen in top elevation.

The two main parts of the machine are the twisting arrangement and the coiler. The twisting arrangement consists of two pair of drums *a a'* and *b b'*, which are connected in couples by means of belts *c* and *d*. The drums are mounted in couples above each other, so that there is a small space of about one millimeter between the upper part of the belt *c* and the lower part of the belt *d*. The belts pass each other at an angle which can be varied by means of a special arrangement. The motive power is transmitted to the drums from the main shaft *e* by means of conical cog-wheels *f f'*, the perpendicular shaft *g*, (see Fig. 1,) upon which the cog-wheel *h* (see Fig. 4) is mounted below the working table *i*. This cog-wheel gears with two smaller cog-wheels *k l*, mounted upon perpendicular shafts *m n*. These latter have above screws without ends (worms) which gear with worm-wheels *q* and *r*, fastened upon the one drum of each drum-couple. The drum-couples are suspended in fork-bearings *s*, (see Fig. 5,) the lowermost of these being turnable around a pin *u* in the table-slab *i*, while the other one is suspended in a trestle *w*. (See Fig. 1.)

In order to be able to vary the angle between the belts *c* and *d* when it is desired, owing to the different thickness of the tobacco-leaves, to vary the speed at which the string of tobacco is brought forward and the tightness with which it is wound, the perpendicular shafts *m* and *n* are connected with a rack 3 by means of drawing-rods 1 2. (See Figs. 2, 3, 4.) Gearing with this rack is a segment 4, turnable around an axle 5 and firmly connected with a two-armed lever 6, whose arms in their turn are, by means of drawing-rods 7 8, connected with pedals 9 10, so that the workman can adjust the machine with his feet. The shafts *m* and *n* have bearings partly in the drawing-rods 1 2 and partly in eyes 21 (see Figs. 5 and 6) in the bearing-forks *s*. They pass through curved cuttings in the table-slab, whose lengths correspond to the greatest play it is desired to give the shafts *m n*. The upper part of the lowermost belt is supported by two drums 12,



said plates to vary the inclination of the bands, means for feeding tobacco between the bands on one side and coiling or winding means on the other, substantially as described.

5 6. In combination, an initial twisting-needle, a pair of endless bands arranged at an inclination to each other with means for operating them, a winding-drum in rear of said

bands and friction means for driving said winding means, substantially as described. 10

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

WILLIAM SCHERTIGER.

Witnesses:

A. COUTSERY,
MYLIUS.