

No. 637,764.

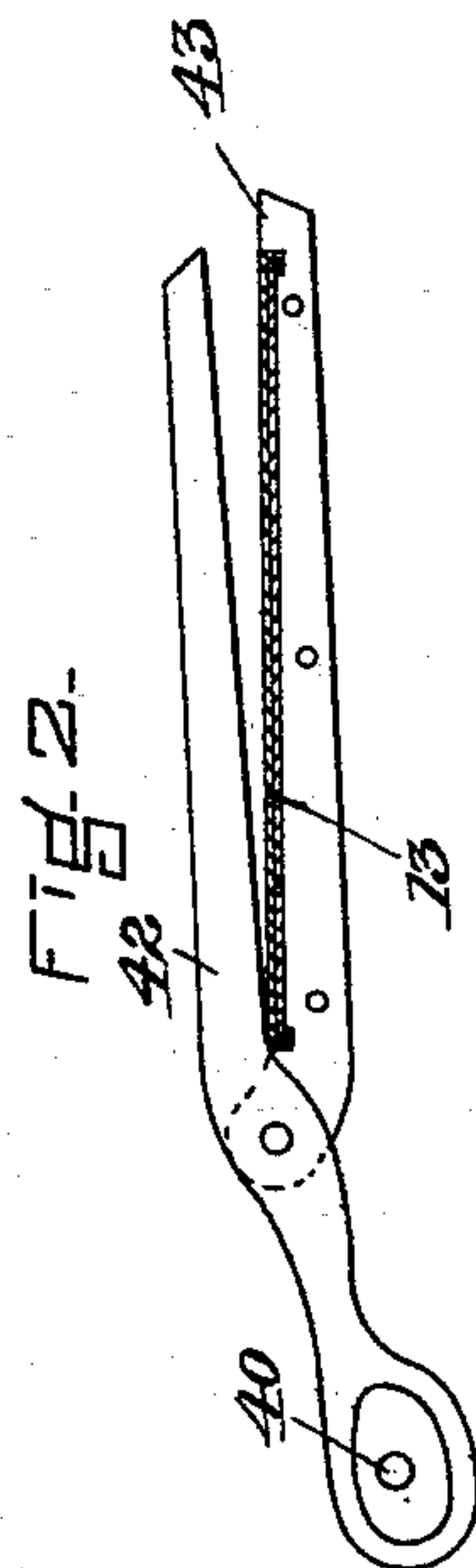
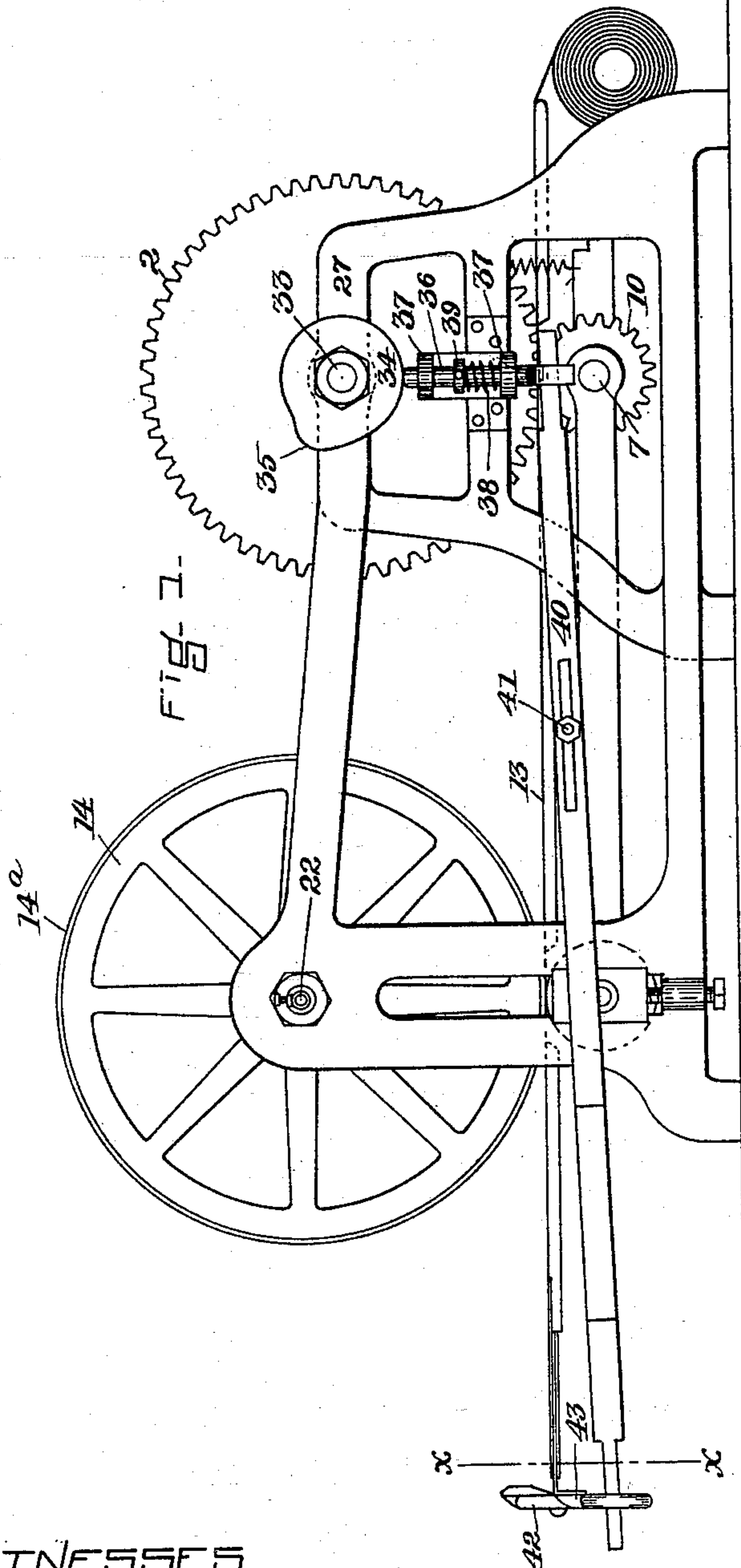
Patented Nov. 28, 1899.

J. W. CAMPBELL.  
CYLINDRICAL NEOSTYLE.

(Application filed June 3, 1898.)

(No Model.)

4 Sheets—Sheet 1.



WITNESSES.

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*Fred E. Lorr*

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*John W. Campbell*  
*by his attorney*  
*Thomas S. Beach*

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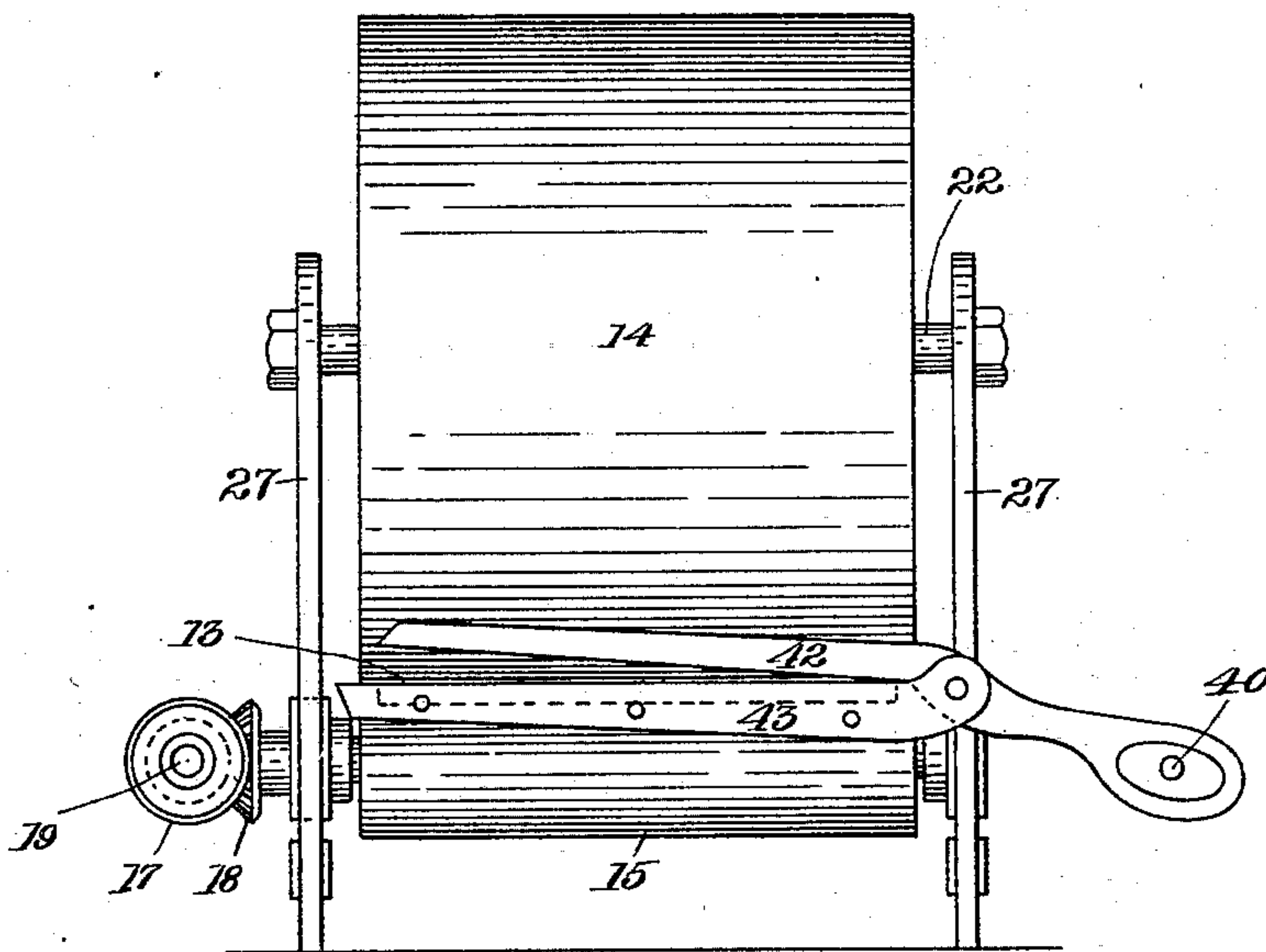
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(No Model.)

4 Sheets—Sheet 2.

Fig. 3.



WITNESSES.

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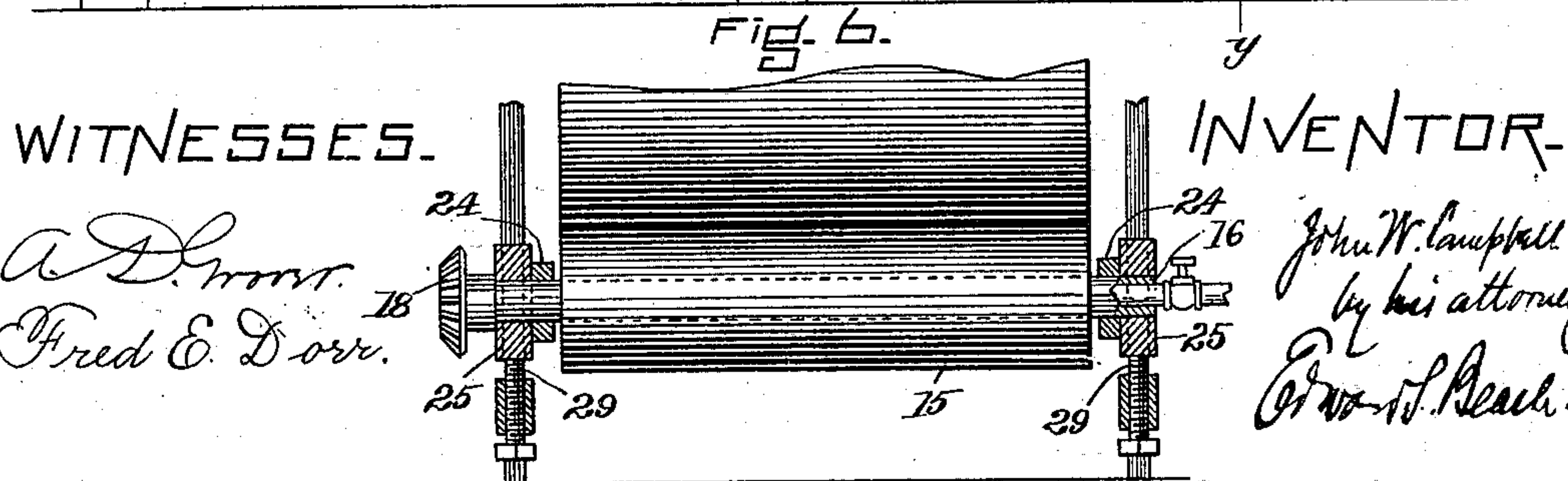
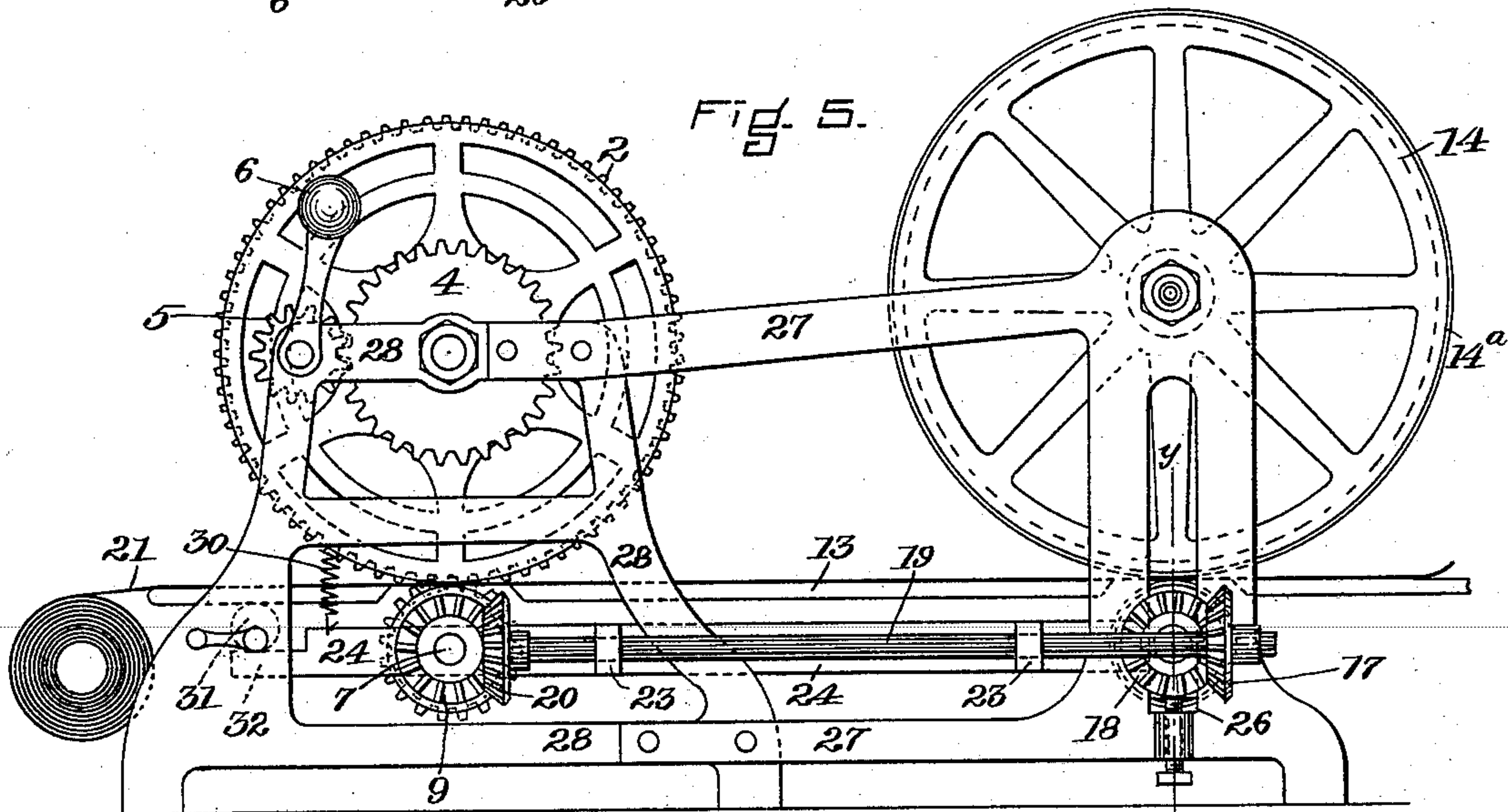
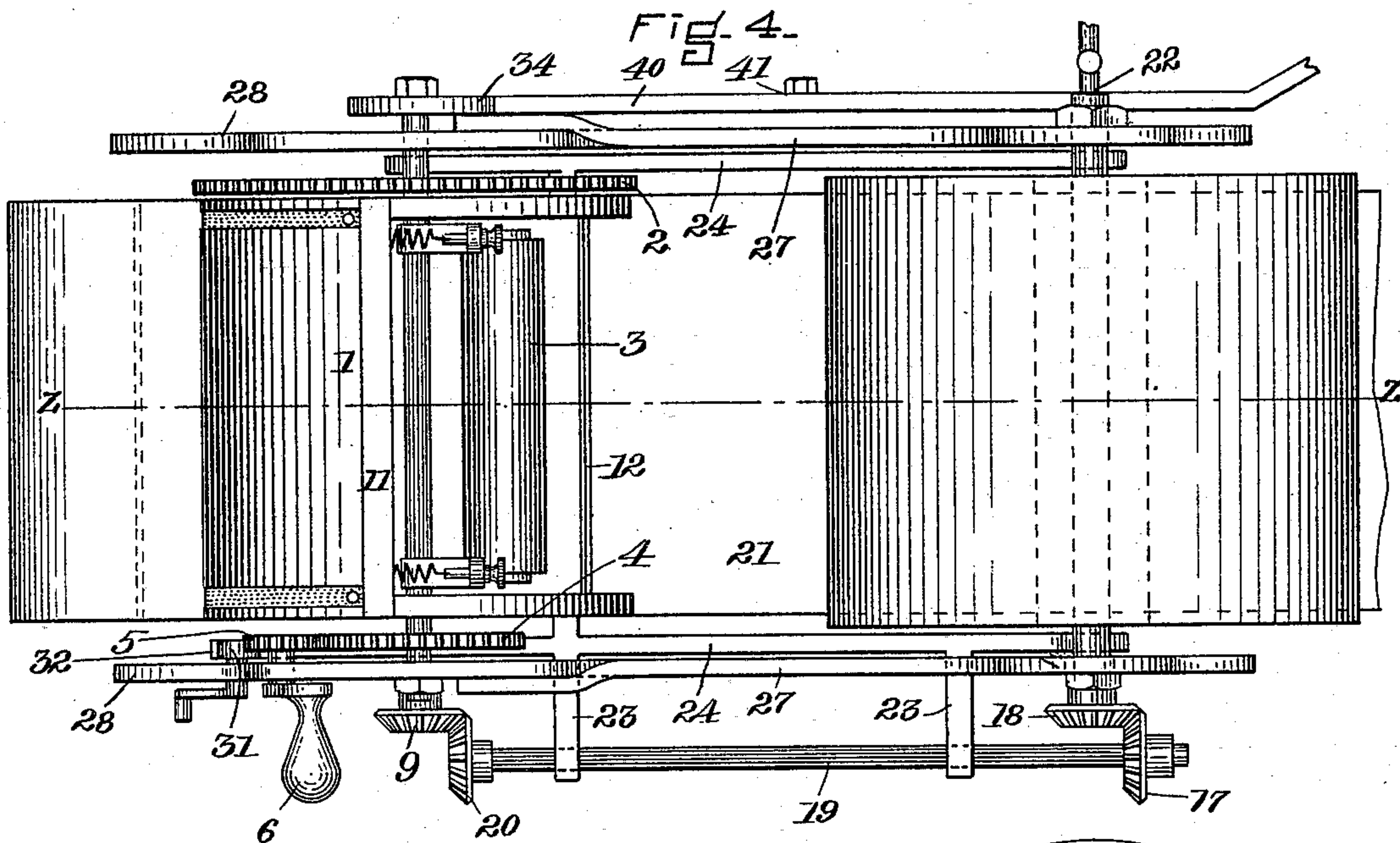
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CYLINDRICAL NEOSTYLE.

(Application filed June 8, 1898.)

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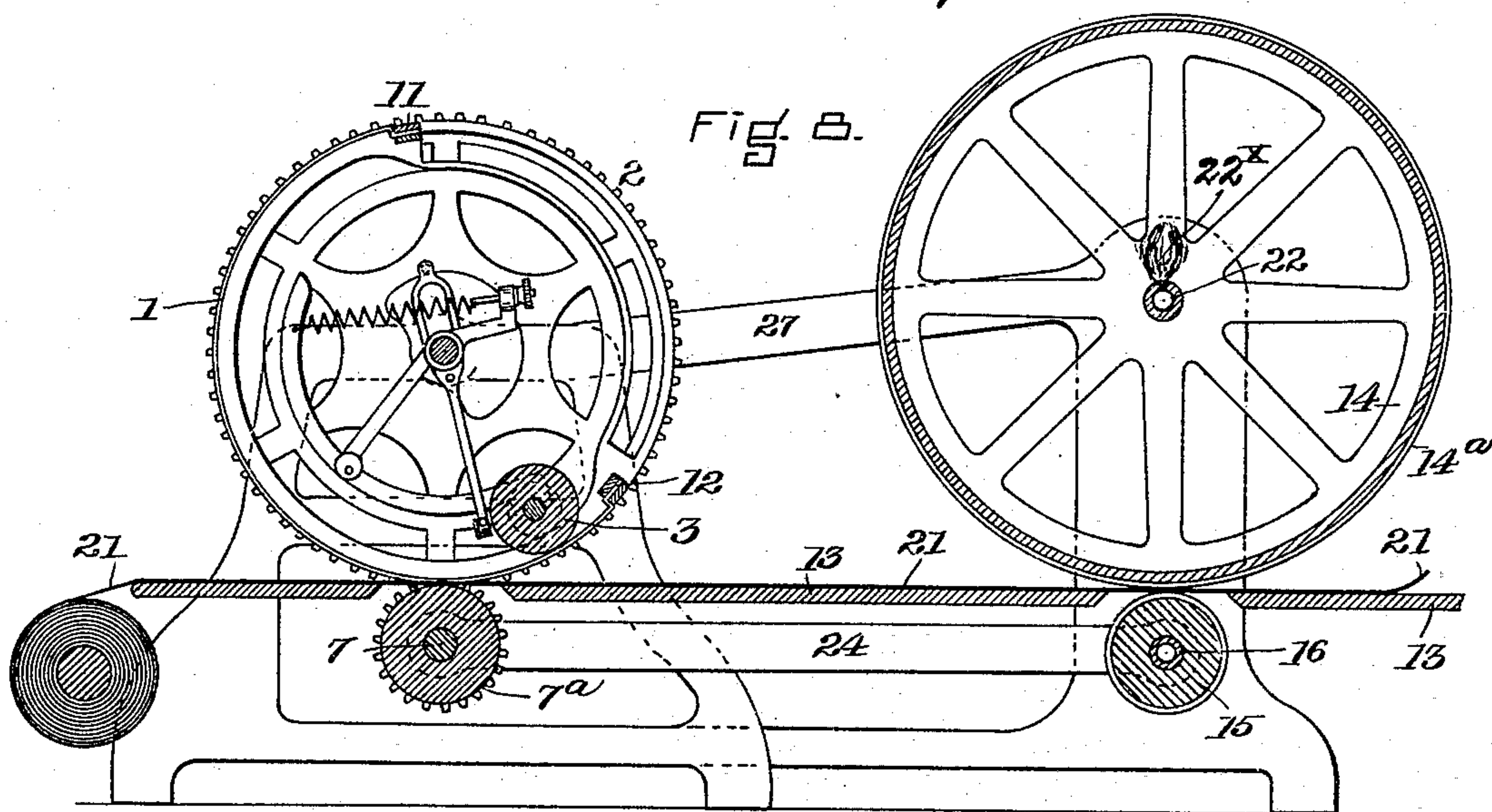
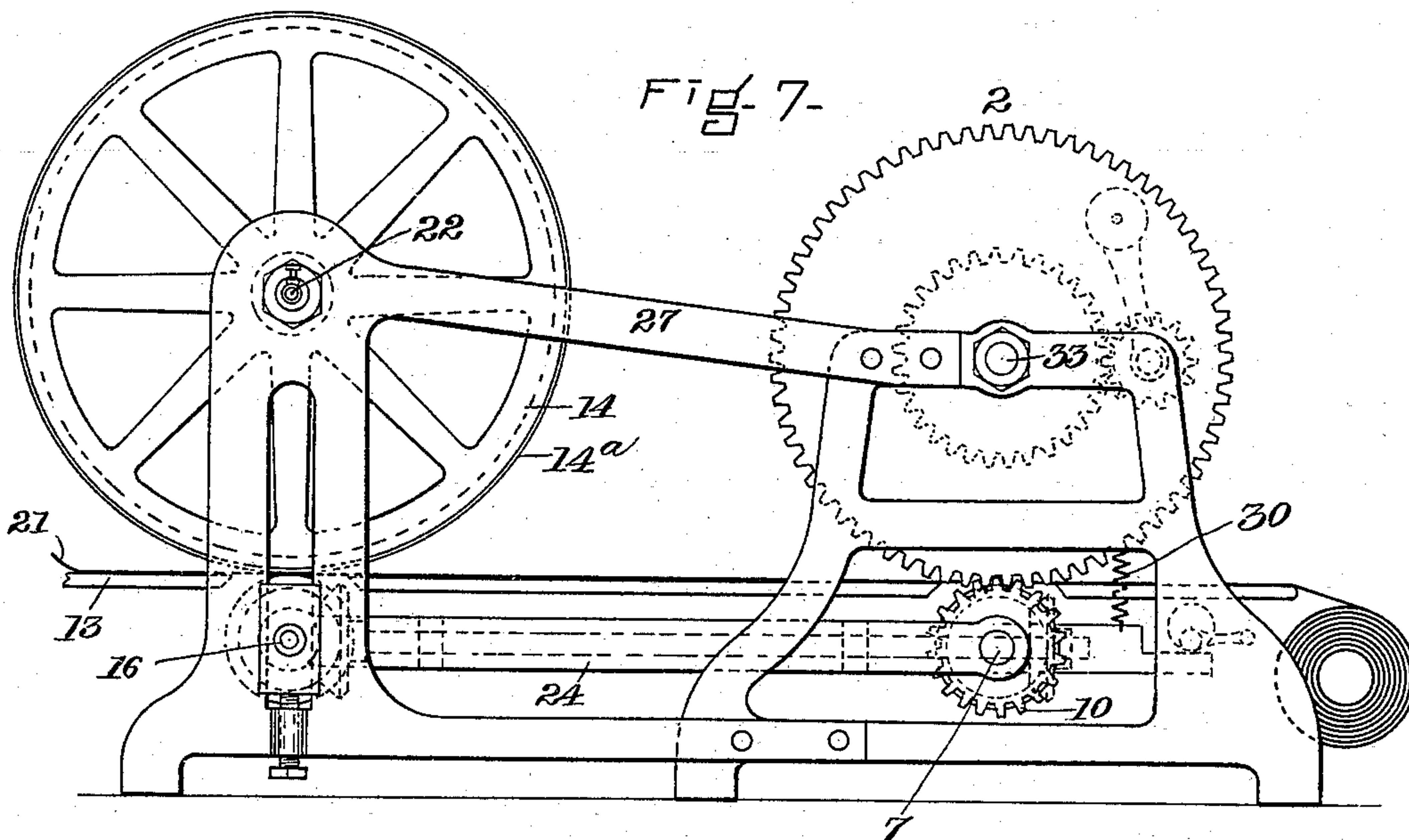
**Patented Nov. 28, 1899.**

**J. W. CAMPBELL.**  
**CYLINDRICAL NEOSTYLE.**

(Application filed June 3, 1898.)

(No Model.)

4 Sheets—Sheet 4.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

JOHN W. CAMPBELL, OF NEW YORK, N. Y.

## CYLINDRICAL NEOSTYLE.

SPECIFICATION forming part of Letters Patent No. 637,764, dated November 28, 1899.

Application filed June 3, 1898. Serial No. 682,422. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. CAMPBELL, of New York, (Sea Cliff,) in the county of Queens and State of New York, have invented an Improved Cylindrical Neostyle, of which the following is a specification.

Referring to the accompanying drawings, Figure 1 is a rear elevation of my improved neostyle. Fig. 2 is a side view of a form of severing mechanism contained in the machine, a portion of this figure being taken on line *xx* of Fig. 1. Fig. 3 is a front end view of the machine shown in Fig. 1. Fig. 4 is a top plan view of the machine. Fig. 5 is a front side elevation. Fig. 6 is a transverse sectional detail at line *yy* of Fig. 5 of the swinging frame which supports the platen-roll of the neostyle. Fig. 7 is a rear side elevation of a portion of the machine, the severing mechanism being removed for greater clearness. Fig. 8 is a lengthwise central section of the machine with the severing mechanism removed, on line *zz* of Fig. 4.

The cylindrical neostyle (and comparable machines) prints from a stencil-like impression-roll on tissue or other thin paper, and where large numbers of copies are wanted for immediate use much difficulty has been encountered in drying the copies rapidly enough for desirably-prompt distribution.

One object of my invention is to blot or otherwise get rid of the fresh ink on the copies as fast as they come from the printing-rolls, and a second object of my invention is to sever the copies from a continuous web as fast as the printed copies are made apparently dry in the machine.

My invention consists of the combinations hereinafter claimed.

In the drawings illustrating the principle of my invention and the best mode now known to me of applying that principle, 1 represents the usual stencil-sheet of the cylindrical neostyle, and 2 the gear at the end of its impression-cylinder, whereof the stencil 1 is a part. The ink-roll 3 is mounted as usual and in a manner and in connection with devices too well-known to those skilled in the art to require description herein, although they are shown in the drawings; but in order to explain the operation of my improved machine it is necessary to refer to some extent to the

construction of the neostyle proper, and 4, 5, and 6, respectively, represent the driving-gear of the impression-cylinder, the pinion meshing therewith and rotated by the crank, and the crank. It will be convenient to refer to the handle side of the machine as its "front" side. The shaft 7 of the usual platen-cylinder is provided with the bevel-gear 9. Shaft 7, as usual, carries a gear 10, which meshes with an end gear 2 of the impression-cylinder. The stencil 1 extends only part way around the impression-cylinder—from cross-bar 11 to cross-bar 12. Bed 13 extends, as usual, on both sides of the platen-roll on shaft 7 and in my improvement is extended between the blotting-roll 14 and its cooperating feed-roll 15, which is mounted on transverse shaft 16 at a suitable distance from the shaft 7 and carries a bevel-gear 18, which meshes with a bevel-gear 17 on shaft 19, which extends lengthwise of the machine and carries a bevel-gear 20, with which the bevel-gear 9 (on shaft 7) meshes. As web 21 is printed and fed from between the impression-roll and platen-roll its free end is led (by the operator) between the blotter-roll 14 and cooperating feed-roll 15, the two sets of rolls—the impression-roll and platen-roll and the blotter-roll 14 and feed-roll 15—being geared to rotate at the same speed. These two sets of rolls are driven by power applied to one of the printing-rolls, as by handle 6 on the impression-cylinder, and through the interworking gears 9 and 20, shaft 19, and interworking gears 17 and 18. Roll 14 is faced with blotting-paper or other absorbent material, and the printed portions of web 21 (of tissue or other suitable material) are blotted as fast as printed and so made ready for mailing or other use. When the blotting-paper does not serve to absorb the fresh ink rapidly enough, I heat one or both rolls 14 and 15 by introducing any suitable heater, such as a gas-flame 22<sup>x</sup>, within hollow shaft 22 of blotter-roll 14 or within the shaft 16, which may be made hollow for this purpose. Ordinarily the blotter-cylinder will do the work of absorption without the heater, which may be of any suitable kind—gas, oil, or electric, as desired. It is customary to have the platen-roll movable toward and away from the impression-roll, as is well known to all skilled



in the art, and I consequently mount the journals 23 of shaft 19 on one of the swinging side bars 24, through which the shaft 16 loosely passes. (See Fig. 6.) Shaft 16 is jour-  
 5 naled in the vertically-adjustable boxes 25, mounted in guideways 26 in the side frames 27, which are here shown as connected to the usual side frames 28 of the neostyle. These journal-boxes 25 are supported on screws 29,  
 10 which serve to press the blotter feed-cylinder 15 toward its cooperating blotter-roll 14. Shaft 7 is journaled in and near the free ends of the swinging side bars 24 24, the free ends of these bars being pulled toward the impres-  
 15 sion-cylinder by springs 30 to keep the surface of the platen-roll 7<sup>a</sup>, Fig. 8, in working contact with the stencil on the impression-cylinder. Bars 24, with the platen-roll 7<sup>a</sup>, are adjusted to be pushed away from the impres-  
 20 sion-roll (or stencil-carrying cylinder) by means of the cams 31, which are mounted in side frames 28 and work on the ends 32 of the swinging side bars. The adjustability of the platen-roll 7<sup>a</sup> and blotter feed-roll 15 is desir-  
 25 able in cases of variation in thickness of stock and for obtaining desired pressures between the platen-roll and stencil and between the blotter-roll and its cooperating feed-roll 15. The rolls 7<sup>a</sup> and 15 may be covered or faced  
 30 with any suitable material, and the absorbent sheet 14<sup>a</sup> is intended to be renewed as fast as blurred by the absorption of ink.

As the printed and blotted web issues from between the blotting mechanism, consisting,  
 35 essentially, of two members preferably, but not necessarily, in the form of rolls 14 and 15, the web may be severed by shears in the hands of the operator; but, if desired and as I prefer, an automatic severing mechan-  
 40 ism may be employed. In the drawings I show one of many mechanically-possible forms of severing mechanism. (See Figs. 1, 2, 3, and 4.) On the shaft 33 of the blotter-cylinder (the shaft being journaled in side  
 45 frames 27) I mount a cam 34, the high point 35 of which engages rod 36 to actuate the movable member of the severing mechanism at the instant the printed and blotted section of the web issues from rolls 14 and 15. Rod 36  
 50 is mounted vertically in bearings 37 on side frame 27 and is held up by a spring 38 between the lower bearing 37 and a collar 39 on the rod. The lower end of the rod is loosely connected with the lever 40, pivoted at 41 to  
 55 the frame of the neostyle. The forward end of the lever engages the movable severing member 42 and moves it toward and away from the stationary member 43, which extends transversely across the machine with its up-  
 60 per edge in the plane of the bed 13. As the high point of the cam moves out of engagement with the rod the spring 38 pushes the rod upwardly, so that the latter pulls up the rear end of the lever 40, throwing down the  
 65 front end of the lever and moving cutting member 42 away from stationary cutting member 43.

The machine above described may be altered in many of its mechanical features with-  
 out departure from my invention.

My improved neostyle is especially useful in offices from which it is desired to send, at cer-  
 70 tain business hours, large numbers of reports speedily after the information therein is ob-  
 75 tained and with such celerity that there is not time for the printed sheets to be dried in the ordinary way.

What I claim is—

1. In a printing-machine, the combination  
 80 of a frame; an impression-cylinder; a platen-roll cooperating with said cylinder; an ink-roll; positively-driven cooperating drying-cylinders by and between which the printed material is fed, said drying-cylinders being  
 85 covered with absorbent material; a driving mechanism for said impression-cylinder; and mechanism which drives said drying-cylinders at the same peripheral speed as that of the impression-cylinder.

2. In a printing-machine, the combination  
 90 of a frame; an impression-cylinder; a platen-roll cooperating with said cylinder; an ink-roll; positively-driven cooperating drying-cylinders which are covered with absorbent material and by and between which the print-  
 95 ed material is fed; mechanism for pressing said drying-cylinders together; a driving mechanism for said impression-cylinder; and mechanism which drives said drying-cylinders at the same peripheral speed as that of  
 100 the impression-cylinder.

3. In a printing-machine, the combination  
 105 of a frame; an impression-cylinder; a platen-roll cooperating with said cylinder; an ink-roll; cooperating drying-cylinders which are covered with absorbent material and by and between which the printed material is fed; means for heating said drying-cylinders from the interior thereof; a driving mechanism for  
 110 said impression-cylinder; and mechanism which drives said drying-cylinders at the same peripheral speed as that of the impression-cylinder.

4. A cylindrical neostyle made up of a frame;  
 115 an impression-cylinder; a platen-roll cooperating with said cylinder; an ink-roll; positively-driven cooperating drying-cylinders by and between which the printed material is fed, said drying-cylinders being covered with  
 120 absorbent material; a driving mechanism for said impression-cylinder; mechanism which drives said drying-cylinders at the same peripheral speed as that of the impression-cylinder; and a severing mechanism for cutting  
 125 the web of printed material into sheets at the proper point thereof.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 28th day of  
 May, A. D. 1898.

JOHN W. CAMPBELL.

Witnesses:

EDWARD S. BEACH,  
 E. A. ALLEN.