

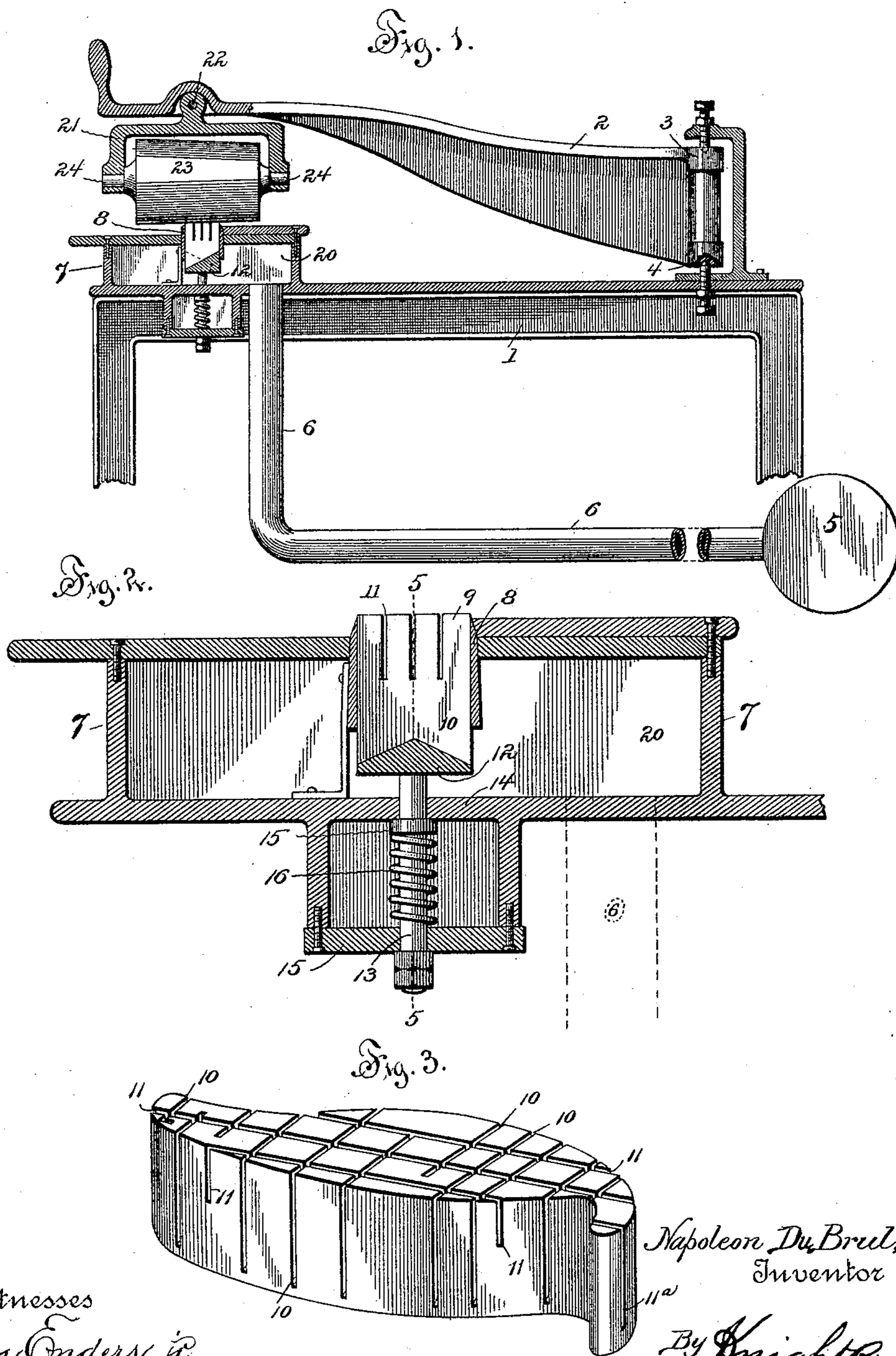
(No Model.)

2 Sheets—Sheet 1.

N. DU BRUL.
CIGAR WRAPPER CUTTING MACHINE.

No. 606,129.

Patented June 21, 1898.



Witnesses
John Enders, Jr.
Herbert Bradley

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Attorneys.

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Fig. 4.

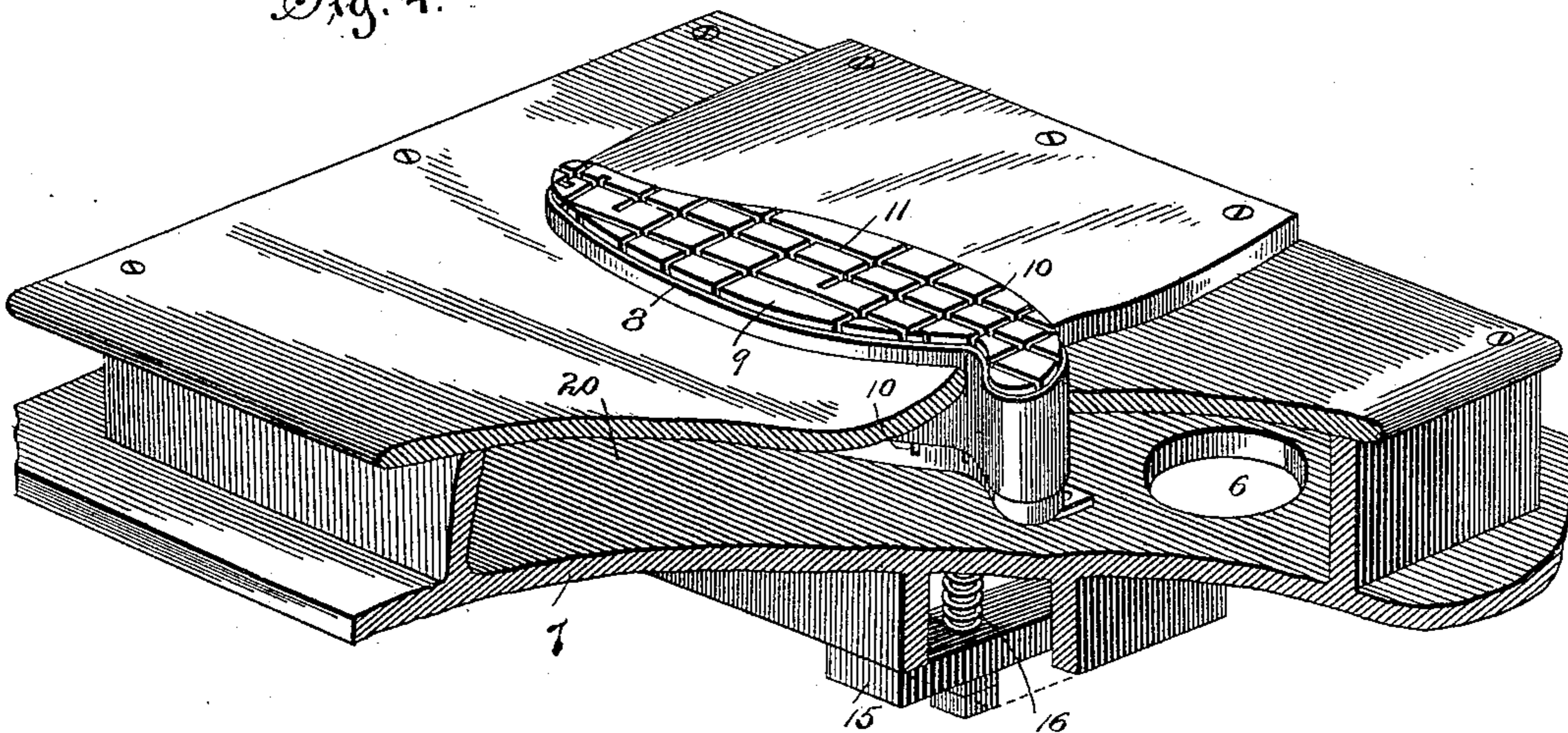
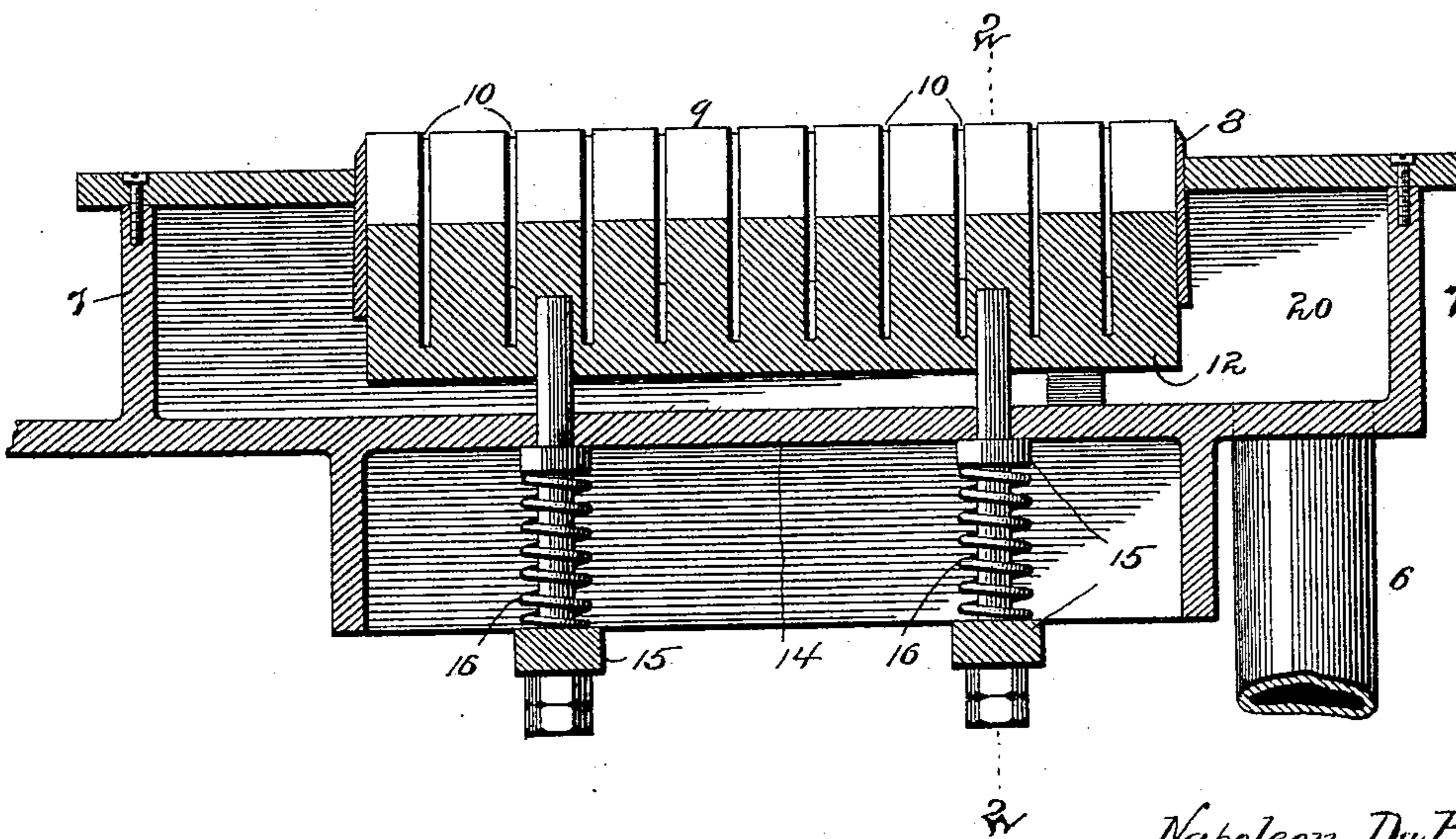


Fig. 5.



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UNITED STATES PATENT OFFICE.

NAPOLEON DU BRUL, OF CINCINNATI, OHIO.

CIGAR-WRAPPER-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 606,129, dated June 21, 1898.

Application filed February 1, 1897. Serial No. 621,513. (No model.)

To all whom it may concern:

Be it known that I, NAPOLEON DU BRUL, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cigar-Wrapper-Cutting Machines, of which the following is a specification.

My invention relates to suction-die wrapper-cutters; and it consists in features of novel construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a sectional elevation of a machine involving my present invention. Fig. 2 is a vertical section on the line 2 2, Fig. 5. Fig. 3 is a perspective view of the supporting-block. Fig. 4 is a perspective view in which portions are broken away to show the interior construction. Fig. 5 is a vertical section on the line 5 5, Fig. 2.

1 represents the frame of the machine, having the usual swinging arm 2, pivoted at 3 4.

5 represents any suitable air-exhausting device, and 6 a connection from said air-exhausting device.

The features thus far described may be of any suitable construction.

I provide an air-chest 7, the top of which forms the working surface of my cutter. This air-chest has mounted within it a pendant cutting-die 8, within which is a supporting-block 9 of peculiar construction. The construction of this supporting-block will be understood from Figs. 2 to 5, in which it is shown with deep longitudinal saw-kerfs or open slots 11 and deeper still longitudinal saw-kerf or open slot 11^a and transverse saw-kerfs or open slots 10, extending wholly or partly across the block. The longitudinal saw-kerfs or open slots 11 and transverse saw-kerfs or open slots 10 intersect each other, as shown, so as to freely communicate, and the longitudinal saw-kerf or open slot 11^a and some of the transverse saw-kerfs or open slots 10 are made to extend through the wall and nearly to the bottom of the block, while the other longitudinal saw-kerfs or open slots 11 may extend through the wall below the cutting-die and stop short of the lower ends of

the deeper transverse kerfs or open slots. It is immaterial that these saw-kerfs or open slots are arranged in any particular manner so long as they furnish unobstructed "kerf-like" channels of such depth that at least some of them afford lateral exits through the wall of the block for the air to be exhausted below the lower edge of the cutting-die. This block may be of any suitable construction and material that will give the result mentioned.

12 represents the bottom of the supporting-block, to which are attached the controlling-rods 13, which work through partition 14 and cross-bars 15. This supporting-block is held normally elevated by supporting-springs 16, surrounding rods 13 and confined between the cross-bars 15 and collars 17 on said rods. Nuts 18 on the lower ends of the rods arrest the upward movement of the supporting-block, and said nuts are adjustable on said rods to regulate the height at which the supporting-block will be arrested.

20 represents the suction-chamber in the air-chest, which is arranged laterally to the cutting-die or to the lower escape-passages formed by the kerfs or open slots 10 in the supporting-block, such suction-chamber being defined by the top and sides of the air-chest. By means of this construction of the air-chest I am enabled to use my improved form of wrapper-supporting block with the lateral air-discharges and to cause the transmission of the suction uniformly to all parts thereof. Furthermore, the adjustable portions of the supporting-block are always accessible. Moreover, the exhausting connections can thus be introduced at any convenient point on the air-chest.

21 represents the self adjusting or compensating roller-frame which has a rocking-bearing 22, connecting its upper middle point to the swinging arm 2, and adapting the roller to rest uniformly upon both edges of the cutting-die.

23 represents the roller, which is journaled at 24 in the frame 21. This roller is frusto-conical or tapered, the angle of the sides being such as to cause the roller to travel uniformly over the edges of the cutting-die, not

withstanding one edge is more distant than the other from the center of oscillation of the arm 2. This avoids the possibility of either side of the roller dragging and tearing the leaf, and it insures a neat cut without the necessity of the additional expense of two rollers with separate mountings and separate pressure devices.

The advantage of my improved construction of supporting-block, in addition to those already mentioned, is that it affords ample opportunity for clearing the channels whenever they become clogged up by simply running a flat instrument along the groove or channels. The manner of mounting the supporting-block with an unobstructed opening beneath renders it possible to get at the controlling-nuts and remove the supporting-block with little loss of time, likewise allowing the adjustment of the block to a perfect level.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination of a cutting-die, a closely-fitting wrapper-supporting block constructed with deep "kerf-like" channels extending through the surrounding wall of the block and providing downwardly and laterally extending air-passages having outlets below the cutting-die, an air-chest surrounding the cutting-die, and means for exhausting the air laterally from beneath the cutting-die and from the air-chest; substantially as described.

2. The combination of a cutting-die, a closely-fitting wrapper-supporting block constructed with deep intersecting "kerf-like" channels extending through the surrounding wall of the block and providing downwardly and laterally extending air-passages, having outlets below the cutting-die, an air-chest surrounding the cutting-die, and means for exhausting the air laterally from beneath the cutting-die and from the air-chest; substantially as described.

3. The combination of a cutting-die, a closely-fitting wrapper-supporting block constructed with deep transverse "kerf-like" channels extending through the surrounding wall of the block and providing downwardly and laterally extending air-passages having outlets below the cutting-die, an air-chest surrounding the cutting-die, and means for exhausting the air laterally from beneath the cutting-die and from the air-chest; substantially as described.

4. The combination of a cutting-die, a closely-fitting wrapper-supporting block constructed with deep longitudinal "kerf-like" channels extending through the surrounding wall of the block and providing downwardly and laterally extending air-passages having outlets below the cutting-die, an air-chest surrounding the cutting-die, and means for ex-

hausting the air laterally from beneath the cutting-die and from the air-chest; substantially as described.

5. The combination of a cutting-die, a closely-fitting wrapper-supporting block constructed with deep longitudinal, and with still deeper transverse "kerf-like" channels extending through the surrounding wall of the block and providing downwardly and laterally extending air-passages having outlets below the cutting-die, an air-chest surrounding the cutting-die, and means for exhausting the air laterally from beneath the cutting-die and from the air-chest; substantially as described.

6. A cigar-wrapper-cutting machine comprising a cutting-die, an air-chest surrounding the cutting-die, a wrapper-supporting block within the cutting-die, and means for exhausting the air laterally from beneath the cutting-die and from the air-chest; substantially as described.

7. A cigar-wrapper-cutting machine comprising a cutting-die, an air-chest surrounding the cutting-die, a wrapper-supporting block with the cutting-die constructed with deep "kerf-like" channels extending through the surrounding wall of the block and providing downwardly and laterally extending air-passages, and means for exhausting the air through the wall of the block beneath the cutting-die and from the air-chest; substantially as described.

8. A cigar-wrapper-cutting machine comprising an air-chest, a cutting-die supported in pendent position within the air-chest and surrounded by the latter, a wrapper-supporting spring-block adapted to slide within the cutting-die, and means for exhausting the air laterally from beneath the cutting-die and from the air-chest; substantially as described.

9. A cigar-wrapper-cutting machine comprising an air-chest, a cutting-die supported in pendent position within the air-chest and surrounded by the latter, a wrapper-supporting spring-block adapted to slide within the cutting-die, means for adjusting the spring-block exposed beneath the air-chest, and means for exhausting the air laterally from beneath the cutting-die and from the air-chest located at one side of the cutting-die; substantially as described.

10. A cigar-wrapper-cutting machine comprising a suitable frame, a cutting-die, a swinging arm, a self-adjusting frame loosely suspended from the swinging arm, and a roller mounted in the frame; substantially as described.

11. A cigar-wrapper-cutting machine comprising a suitable frame, a cutting-die, a swinging arm, a self-adjusting frame having a rocking bearing by which it is suspended from the swinging arm, and a roller mounted in the frame; substantially as described.

12. A cigar-wrapper-cutting machine comprising a cutting-die, a swinging arm, and a

roller suitably mounted on the said arm and having its sides tapered toward the center of oscillation of the said arm; substantially as described.

- 5 13. A cigar-wrapper-cutting machine comprising a cutting-die, a swinging arm, the frame having a rocking bearing on the said

arm, and a tapered roller mounted in the frame and adapted to bear horizontally on the cutting-die; substantially as described.

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