

No. 725,205.

PATENTED APR. 14, 1903.

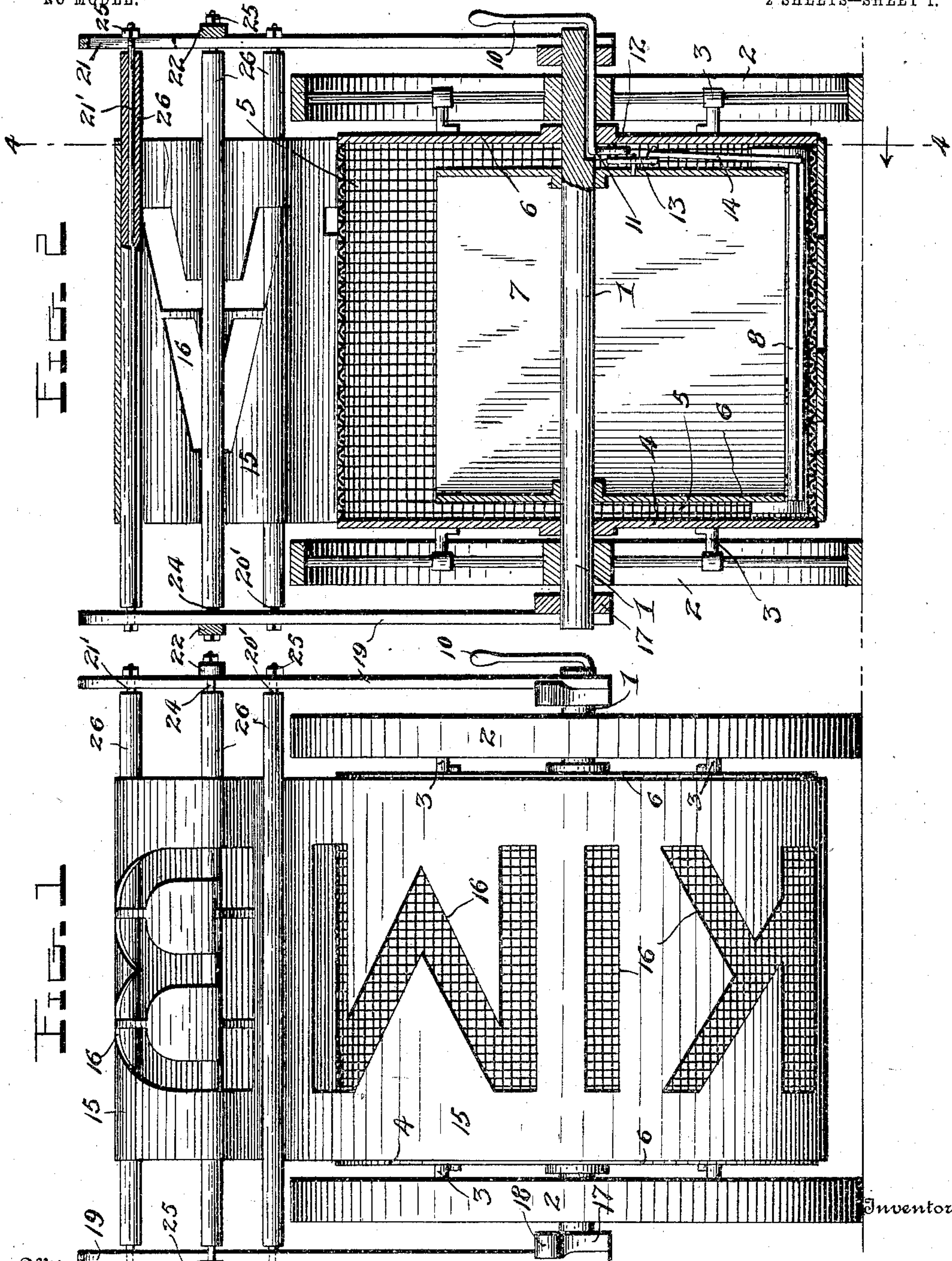
W. F. BLOUNT.

DEVICE FOR FORMING LETTERS, &c.

APPLICATION FILED AUG. 21, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2

FIG. 4

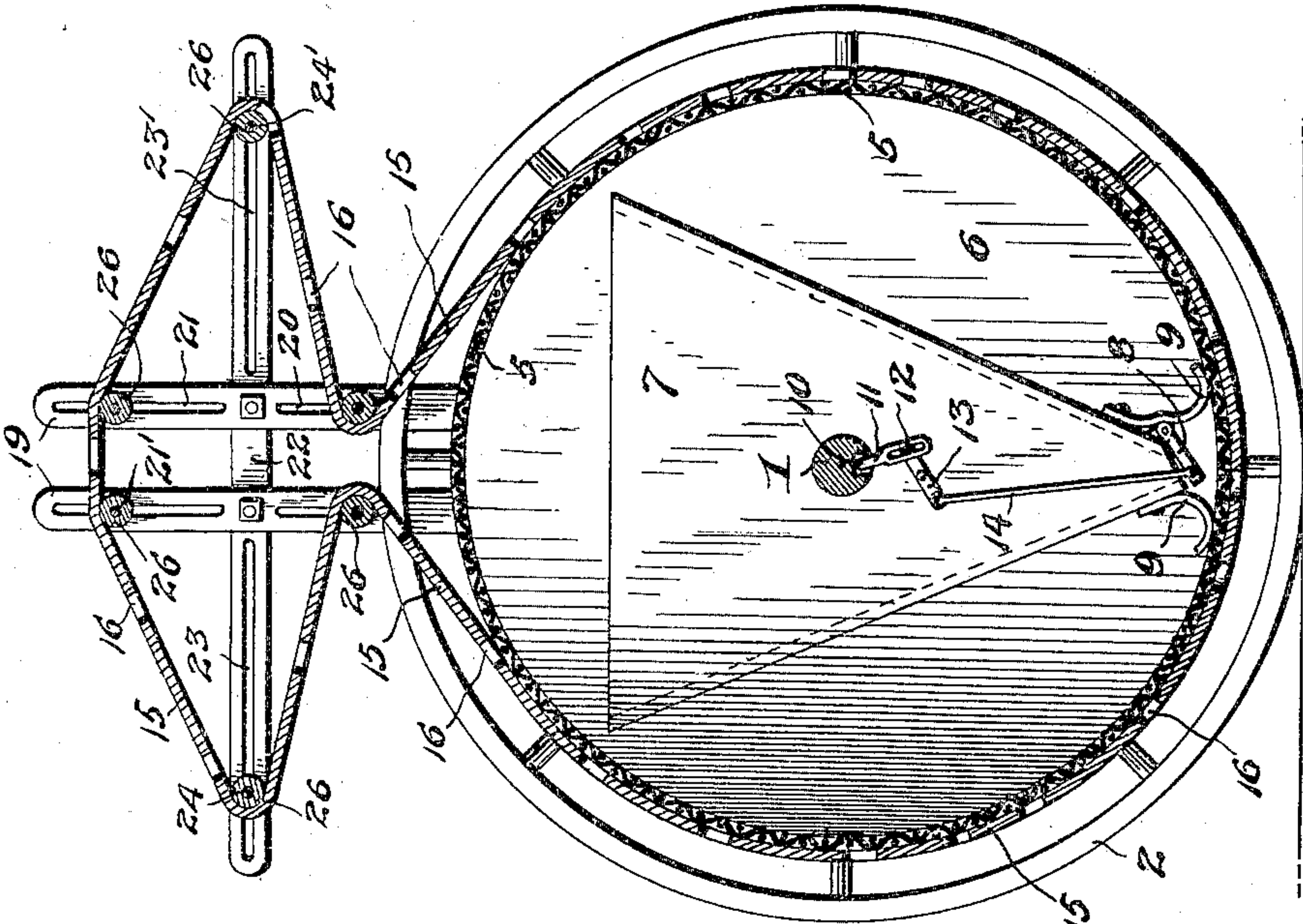
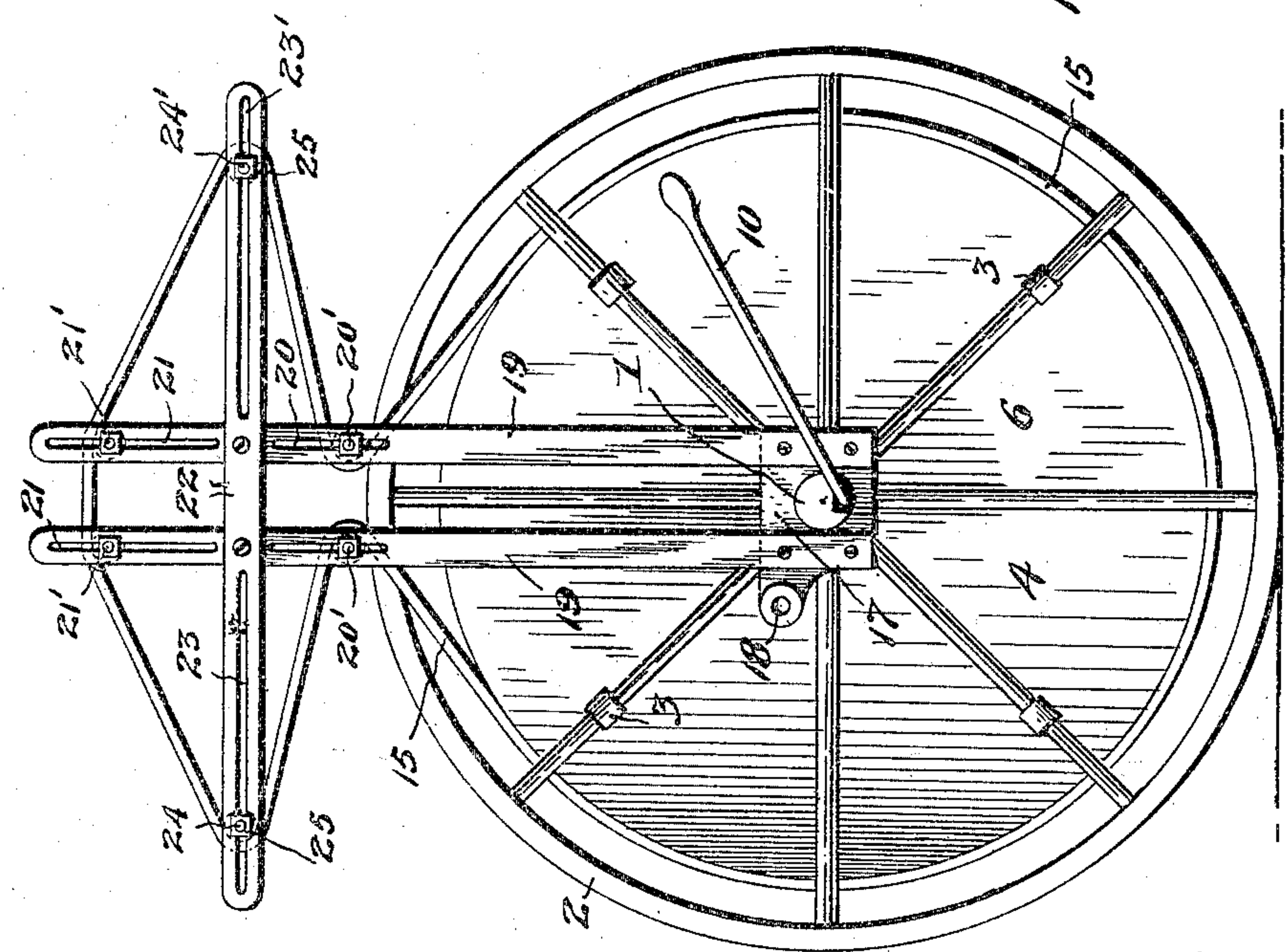


FIG. 3



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UNITED STATES PATENT OFFICE.

WARREN FRANKLIN BLOUNT, OF BALTIMORE, MARYLAND.

DEVICE FOR FORMING LETTERS, &c.

SPECIFICATION forming part of Letters Patent No. 725,205, dated April 14, 1903.

Application filed August 21, 1902. Serial No. 120,542. (No model.)

To all whom it may concern:

Be it known that I, WARREN FRANKLIN BLOUNT, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Devices for Forming Letters, &c.; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a device for forming letters, words, symbols, or marks of sand or powder of any desired color on roads or street-surfaces for advertising and other purposes.

The object of the invention is to provide a simple, durable, and efficient apparatus of this character which may be drawn or propelled by hand or by horse or other power and which may be constructed at a low cost.

With the above and other objects in view, which will readily appear as the nature of the invention is better understood, said invention consists in certain novel features of construction and combination and arrangement of parts, which will be hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a device of the character described embodying my invention. Fig. 2 is a vertical transverse section of the same on the line of the supporting-shaft. Fig. 3 is an end elevation. Fig. 4 is a front to rear section taken on line 4 4 of Fig. 2.

Referring now more particularly to the drawings, the numeral 1 represents a stationary shaft on which are loosely journaled two carrying or supporting wheels 2, which are connected by arms 3 to a revoluble drum 4, which drum comprises a perforated cylinder 5, closed at its ends by heads 6, which are also loosely mounted on the shaft 1. The cylinder or body portion of the drum may be formed of perforated sheet metal or reticulated material, as desired. As the wheels revolve when the apparatus is drawn or pushed along motion is communicated to the drum, which turns about the shaft at the same rate

of speed as the wheels. Fixed to the shaft on the interior of the frame is a V-shaped hopper 7, adapted to contain fine sand or powdered material of any color and provided at its lower end with a hinged or pivoted valve 8, which controls the discharge of sand or powder therefrom. Secured to the base of the hopper on opposite sides of said valve and touching the inner periphery of the lowest point of the screen drum or cylinder 5 are guards 9, which direct the discharging sand or powder to the lowest point of the cylinder and prevent it from passing from the cylinder at any other point. The valve is controlled from without through the medium of a hand-lever 10, extending to the interior of the drum through a groove in one end of the shaft and provided at its inner end with a crank-arm 11, slotted to receive a pin 12 upon one end of a lever 13, centrally pivoted to the hopper, the opposite end of said lever being connected by a link 14 to the valve. By manipulating the hand-lever the valve may be closed to cut off the discharge of sand or powder from the hopper or opened to any extent to regulate the amount of sand or powder feeding from the hopper, as desired.

A distributing belt or band 15 extends nearly around the perforated cylinder or drum and receives motion therefrom and is provided with passages 16 in the form of slots cut stencil-fashion in the belt to provide letters, marks, or symbols constituting the advertising or other matter which is to be transferred by the discharge of sand or powder therethrough onto the road or street surface, the sand or powder being deposited in such manner as to take the form of such letters, marks, or symbols, as will be readily understood. The belt is of greater size or diameter than the drum and at its upper portion is not in contact with the highest portion of the drum, but is adjustably supported in the following manner: Mounted rigidly on the projecting ends of the shaft 1 are brackets 17, each having an eye or socket 18 for the reception of pivot-bolts on a bail-handle, shafts, or other draft attachment, (not shown,) whereby the device may be pulled or pushed by hand, drawn by a draft-animal, or con-

nected to a vehicle, so as to be drawn or
 pushed along. Rising from each of these
 brackets are a pair of spaced vertical stand-
 ards 19, which extend above the drum 4 and
 5 each of which is provided with slots 20 and
 21 for the reception of bolts or rods 20' and
 21', vertically adjustable in said slots. Se-
 cured to each pair of standards is a horizon-
 tal bar 22, extending in a direction trans-
 10 versely to the standards and to the shaft 1
 and provided on opposite sides of its center
 with slots 23 23', receiving similar bolts or
 rods 24 24', which are adjustable horizontally
 in said slots. Each rod or bolt is headed at
 15 one end to bear upon one standard or bar, as
 the case may be, and threaded at its opposite
 end to receive a nut 25, which bears upon the
 other standard or bar and adjustably secures
 20 rods between the standards and the bars are
 loosely mounted rollers 26, and from the drum
 the upper portion of the belt first passes over
 the inner surfaces of the rollers on the rods
 or bolts 20', thence outwardly and around
 25 the outer surface of the rollers on the rods
 or bars 24 24', and finally inwardly and up-
 wardly and over the rollers on the rods or
 bars 21'. By this construction it will be seen
 30 in the slots different sizes of belts may be
 employed for use in connection with differ-
 ent-sized cylinders or for distributing the
 sand or powder to form words, symbols, or
 other matter covering greater or less space
 35 and that also the belt may be adjusted to com-
 pensate for stretching and to always bear
 with the proper force or tension on the screen-
 cylinder 5. This construction furthermore
 spaces the stretches of the belt at their up-
 40 per ends, so as to expose the top of the cyl-
 inder 5, whereby sand or powder may be fed
 into the hopper through the top or upper por-
 tion of the cylinder, enabling the hopper to
 be conveniently replenished whenever re-
 45 quired. A door may, however, be provided
 in the screen-cylinder for this purpose.

The operation is as follows: Assuming the
 hopper to be supplied with a quantity of sand
 or powder to be distributed and the valve 8
 50 to be opened to the desired extent for its dis-
 charge, when the apparatus is drawn or
 pushed along the drum will revolve and trans-
 fer motion to the belt, thereby bringing the
 slotted letters, symbols, or characters in the
 55 latter successively below the space between
 the guards 9 and also below the lowest point
 of the screen-cylinder. The parts are so ar-
 ranged that the lowest portions of the cylin-
 der and belt come within an inch or two of
 60 the road or street surface over which the de-
 vice is traveling, so that the sand or powder
 discharging from the hopper will pass down
 through the meshes or perforations of the
 cylinder and then through the slots in the
 65 belt, being deposited upon the ground in a

form corresponding to the shape of each slot,
 thus causing the production upon the ground
 of one or more letters, words, marks, or sym-
 bols, whereby the advertising or other mat-
 ter is displayed in sand or powder upon the 70
 ground or street surface. By this means an
 attractive sign, name, word, or complete sen-
 tence in sand or powder of any color may be
 formed, which will be repeated at regular in-
 tervals along the entire route traveled. 75

From the foregoing description, taken in
 connection with the accompanying drawings,
 it is thought that the construction, mode of
 operation, and advantages of my improved
 device for forming letters, &c., will be read- 80
 ily apparent without requiring a more ex-
 tended explanation.

Various changes in the form, proportion,
 and the minor details of construction may be
 resorted to without departing from the prin- 85
 ciple or sacrificing any of the advantages of
 this invention.

Having thus described my invention, what
 I claim as new, and desire to secure by Letters 90
 Patent, is—

1. A device for distributing sand or powder
 in a prescribed form on street or other sur-
 faces, comprising a stationary shaft, carry-
 ing-wheels revoluble on the shaft, a screen- 95
 cylinder journaled on the shaft and revolu-
 ble with the wheels, a hopper supported by
 the shaft within the cylinder and adapted to
 discharge sand or powder onto the lowest por-
 tion of the cylinder, and a traveling belt pro-
 vided with escape-passages for the discharge 100
 of the sand or powder upon the street-sur-
 face, said passages adapted to give the es-
 caping sand or powder a desired or prescribed
 form, substantially as described.

2. A device for distributing sand or powder 105
 in a prescribed form on street or other sur-
 faces, comprising a stationary shaft, carry-
 ing-wheels revoluble on the shaft, a screen-
 cylinder journaled on the shaft and revolu-
 ble with the wheels, a hopper supported by 110
 the shaft within the cylinder and adapted to
 discharge the sand or powder onto the lowest
 portion of the cylinder, a valve governing the
 discharge of sand from the hopper, means for
 adjusting the valve from the exterior, and a 115
 traveling belt provided with escape-passages
 for the discharge of the sand or powder upon
 the street-surface, said passages adapted to
 give the escaping sand or powder a desired or
 prescribed form, substantially as specified. 120

3. A device for distributing sand or powder
 in a prescribed form on street or other sur-
 faces, comprising a stationary shaft, carry-
 ing-wheels revoluble on the shaft, a screen- 125
 cylinder journaled on the shaft and revolu-
 ble with the wheels, a hopper supported by
 the shaft within the cylinder and adapted to
 discharge the sand or powder onto the lowest
 portion of the cylinder, a traveling belt pro-
 vided with escape-passages for the discharge 130

of the sand or powder upon the street-surface, said passages adapted to give the escaping sand or powder a desired or prescribed form, and means for adjustably mounting the
5 belt, substantially as and for the purpose specified.

In testimony whereof I have hereunto set

my hand in presence of two subscribing witnesses.

WARREN FRANKLIN BLOUNT.

Witnesses:

P. D. LAWRASON,
F. V. ROWE.