

No. 741,147.

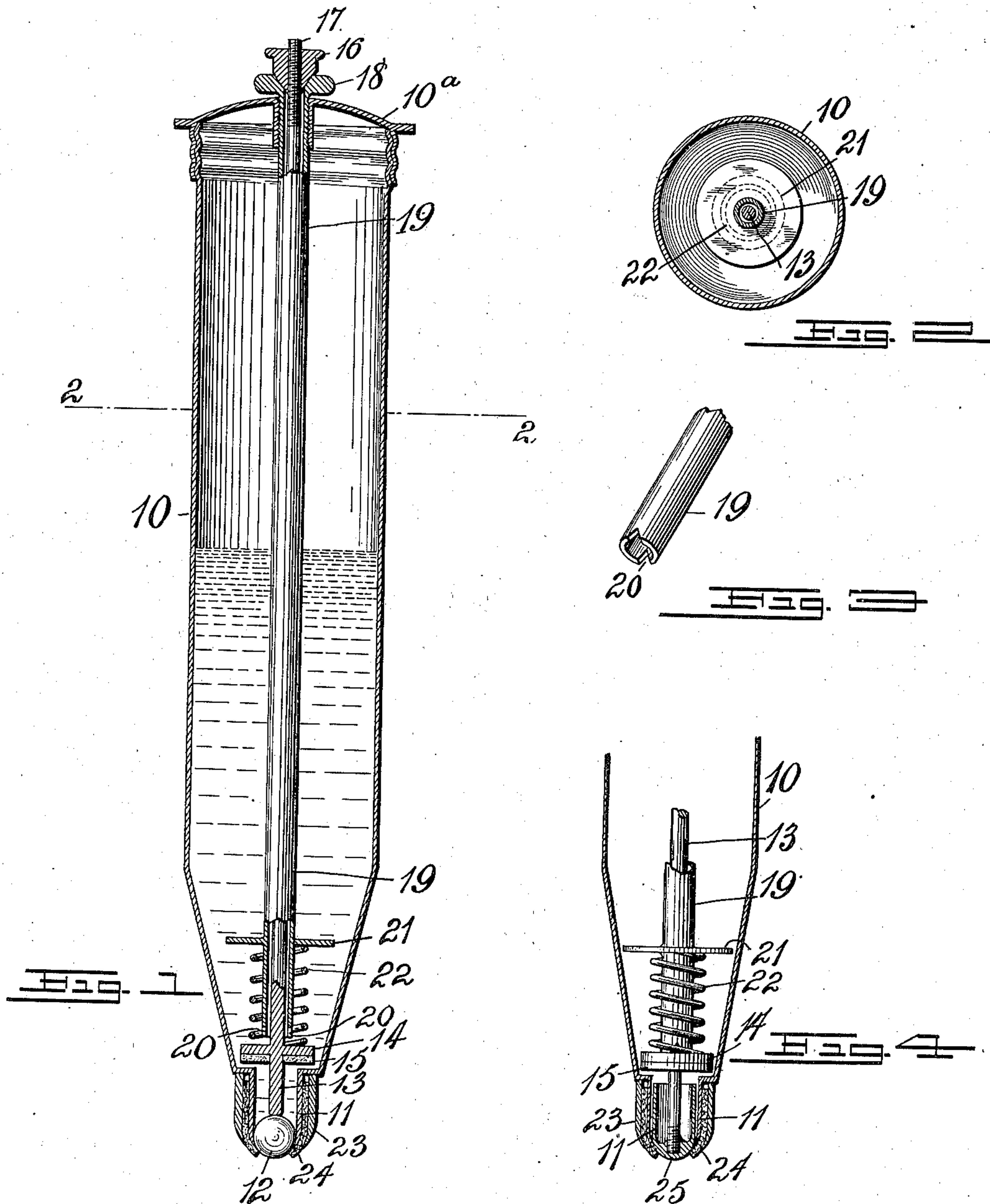
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J. LA BURT & D. McM. P. CAMPBELL.

MARKING PEN.

APPLICATION FILED JAN. 29, 1903.

NO MODEL.



WITNESSES:

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JOHN LA BURT AND DAVID McMUN PAUL CAMPBELL, OF NEW YORK,
N. Y.; SAID LA BURT ASSIGNOR TO HIMSELF, AND CARL D. BRADLEY
AND ALBERT L. ELIEL, OF PARLIN, NEW JERSEY.

MARKING-PEN.

SPECIFICATION forming part of Letters Patent No. 741,147, dated October 13, 1903.

Application filed January 29, 1903. Serial No. 141,084. (No model.)

To all whom it may concern:

Be it known that we, JOHN LA BURT and DAVID McMUN PAUL CAMPBELL, of the city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Marking-Pens, of which the following is a full, clear, and exact description.

This pen relates to that class adapted for heavy marking—such as are required on express packages and bundles of this class—and is designed to provide a pen that makes a clean sharply-defined mark, and also one in which the flow of ink from the reservoir to the writing-point is steady and easily regulated.

Another feature of this invention is that the admission of air to the reservoir to facilitate the flow of ink is so arranged as to not give a pressure on the whole body of the fluid, but is admitted so as to provide a flow of air near the writing-point.

With these ends in view our invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters and figures of reference refer to similar parts throughout the several views.

Figure 1 is a central vertical section of the pen. Fig. 2 is a section on line 2 2 in Fig. 1. Fig. 3 is a perspective of the end of the air-admitting tube. Fig. 4 is a similar pen, shown partly in section, with a modified form of writing-point.

In the views, 10 is a reservoir for the reception of the ink, which has on one end a cap 10^a and on the other end a reduced portion 11, forming an outlet. In this outlet is placed a ball 12, which is held down by a rod 13, which rod has a flange 14, provided with a washer 15, which may be screwed down tight on the upper end of the outlet 11 to entirely shut off the supply of ink, but is usually in the position shown in Fig. 1.

The rod 13 extends up the length of the pen and has a threaded end 17, on which is screwed a nut 16, which can be tapered on its

inner end to fit a countersunk portion in the top of the enlarged end 18 of a tube 19, which screws into a screw-threaded portion of the cover 10^a and near the bottom thereof has a flange 21, which acts to bear on the sides of the reservoir when writing is being done to take the strain off the tube 19. The end of the tube 19 is provided, as shown more particularly in Fig. 3, with V-shaped or similar cut-away portions 20, the offices of which will be described hereinafter.

It will thus be seen that when the pen is used a pressure on the ball 12 will bear on the rod 13, lifting its upper end and opening the valve 16, which allows the entrance of air into the tube 19, which air has an exit only at the lower end of the tube 19. In this way the pressure on the ink is regulated by the pressure on the ball, but at no time, owing to the admission of the air in proximity to the bottom of the reservoir, is the pressure sufficient to cause an excessive flow. When the writing stops and the pressure from the ball is removed, a spring 22, placed between the flanges 15 and 21, causes, through the rod 13, a closing of the valve 16 and in this way shuts off the air-pressure, and the pen, even if turned upside down, would still hold the ink.

If the nut 16 is screwed upon the rod 13, it will regulate the amount of air to be admitted to the reservoir until the end of the tube 19 and the flange 14 abut, when there is still an outlet provided when pressure is exerted on the ball through the openings 20 on the end of the tube 19. When desired, we employ a thimble 23, adapted to hold a lining 24, of felt, rubber, or similar material, and slip over the outlet 11, so that the end of the wiping material embraces the ball 12, and is desired to be used more particularly when it is desired to write on paper or similar smooth substance, in which case less ink is desired than when the writing is being done on wood. This wiping material equalizes the distribution of the writing fluid and at the same time evens off the edges of the lines, as it can be made to bear on the surface written on, the ball in that case merely acting as a feeder.

In Fig. 4 we show a modification in which

the ball is dispensed with, and we place in its stead a thimble with a rounded end which is adapted to fit the end of the rod 13, and this thimble 25 is of a slightly-smaller diameter than the outlet 11, and a space is provided for the escape of ink when the thimble is pressed back, as in writing.

It will be seen from this description that we have designed and provided a pen in which the feature of admitting air to the reservoir to cause the exit of writing from the bottom is new in respect to the exit of the air-inlet being placed underneath the surface of the fluid until the reservoir is well-nigh exhausted and also one in which the wiping projects flush or beyond the writing-point to equalize the flow of ink.

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

1. A marking-pen comprising a reservoir, an outlet, on one end thereof, a writing-point, means for yieldingly holding said writing-point in the outlet of the reservoir, and means adapted to be actuated by pressure on the writing-point for admitting air to the reservoir beneath the surface of the ink.

2. A marking-pen comprising a reservoir, an outlet in one end thereof, a writing-point, means for yieldingly holding said writing-point in the outlet of the reservoir, a tube leading from the end of the reservoir opposed to the writing-point said tube projecting beneath the surface of the writing fluid, a valve on the outer end of the tube, and means for opening said valve when pressure is applied to the ball.

3. A marking-pen comprising a reservoir, an outlet on one end thereof, a ball yieldingly arranged in said outlet, and a wiper arranged to partly cover the ball on its exposed portion.

4. A marking-pen comprising a reservoir, an outlet in one end thereof, a ball in said outlet, means for yieldingly holding said ball in the outlet, a thimble arranged on said outlet, and a wiper between said thimble and the outlet to partly cover the ball on its exposed portion.

5. A marking-pen comprising a reservoir, an outlet on one end thereof, a ball, means for yieldingly holding the ball in the outlet, said means comprising a tube extending from the top of the pen beneath the surface of the writing fluid and secured to the top, a rod sliding in said tube, and having a valve on its

outer end to close the tube, and means, as a spring, to normally hold said valve closed and the ball in the outlet.

6. A marking-pen comprising a reservoir, an outlet on one end thereof, a ball, means for yieldingly holding the ball in the outlet, said means comprising a tube extending from the top of the pen beneath the surface of the writing fluid and secured to the top, a rod sliding in said tube, and having a valve on its outer end to close the tube, and means, as a spring, to normally hold said valve closed and the ball in the outlet, a thimble arranged on said outlet, and a wiper between said thimble and the outlet to partly cover the ball on its exposed portion.

7. A marking-pen comprising a reservoir, an outlet in one end thereof, a ball arranged in the outlet, a tube extending from the opposed end of the reservoir and adapted to extend beneath the surface of the writing fluid, having a flange thereon, and an air-outlet at its lower end, a rod arranged to slide in said tube and bearing on the ball at one end, and having a valve at the other end, said valve being arranged to close the outer end of the tube, said rod having a flange, and a spring arranged between the flange on the rod and the flange on the tube to hold the valve closed, whereby a pressure on the ball will open the valve.

8. A marking-pen comprising a reservoir, an outlet in one end thereof, a ball arranged in the outlet, a tube extending from the opposed end of the writing fluid, having a flange thereon, and an air-outlet at its lower end, a rod arranged to slide in said tube and bearing on the ball at one end, and having a valve at the other end, said valve being arranged to close the outer end of the tube, said rod having a flange and a spring arranged between the flange on the rod and the flange on the tube, to hold the valve closed, whereby a pressure on the ball will open the valve, a thimble arranged on said outlet, and a wiper between said thimble and the outlet to partly cover the ball on its exposed portion.

In testimony whereof we have hereunto set our hands, in the presence of two subscribing witnesses, this 20th day of January, 1903.

JOHN LA BURT.

DAVID McMUN PAUL CAMPBELL.

Witnesses:

WM. H. CAMFIELD,

J. G. DUNBAR.