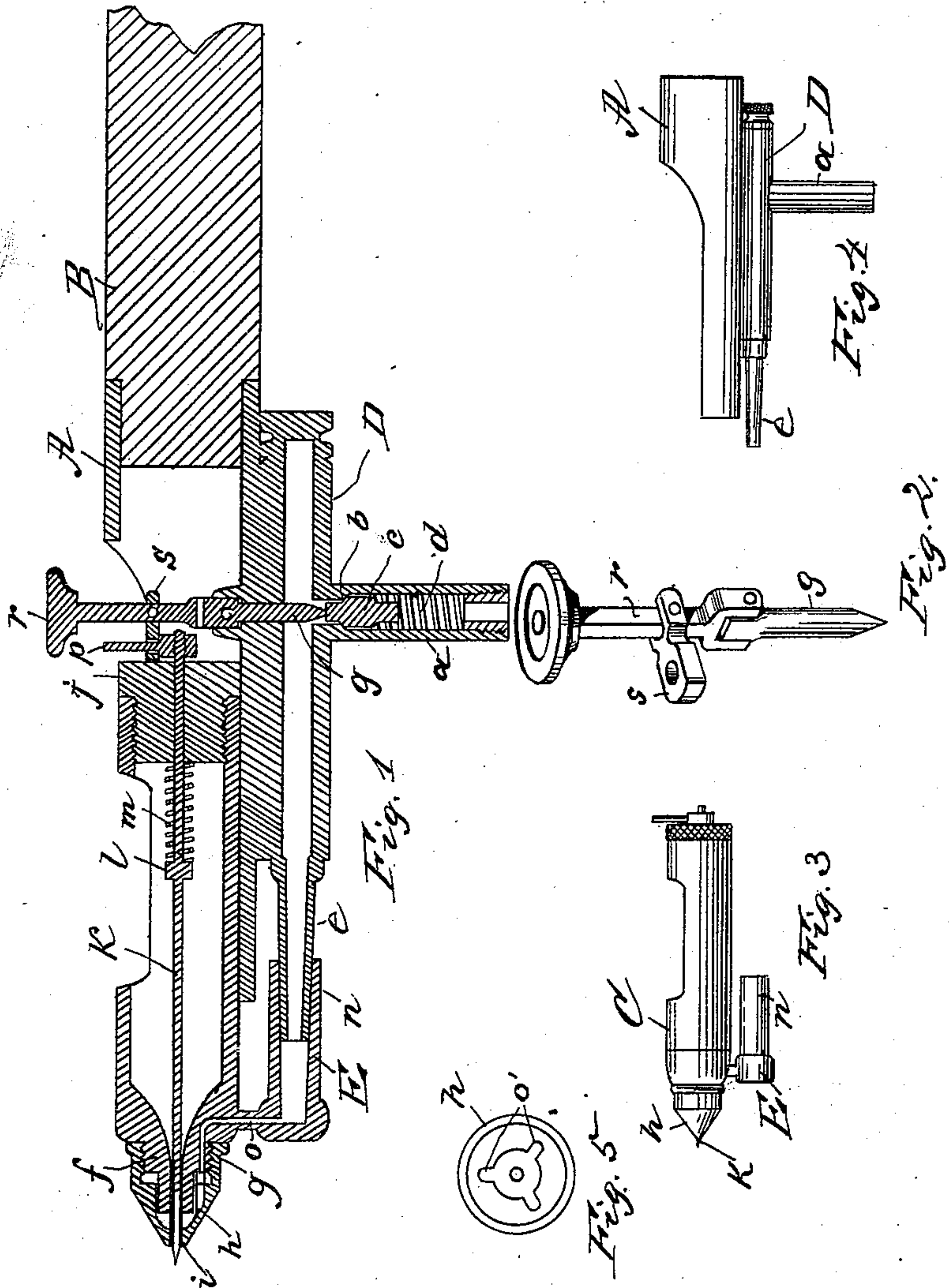


(No Model.)

J. S. OVERMAN & W. T. WOOLSTON.  
AIR BRUSH.

No. 528,686.

Patented Nov. 6, 1894.



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# UNITED STATES PATENT OFFICE.

JOSEPH S. OVERMAN AND WILLIAM T. WOOLSTON, OF CANTON, OHIO.

## AIR-BRUSH.

SPECIFICATION forming part of Letters Patent No. 528,686, dated November 6, 1894.

Application filed July 9, 1894. Serial No. 516,940. (No model.)

*To all whom it may concern:*

Be it known that we, JOSEPH S. OVERMAN and WILLIAM T. WOOLSTON, citizens of the United States, and residents of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Air-Brushes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

Our invention relates to improvements in air brushes and consists of certain features of construction and combination of parts as will be hereinafter described and claimed.

Figure 1, of the drawings is a sectional view of the invention, enlarged. Fig. 2, is a perspective of the valve operating lever enlarged; Fig. 3, a similar view of the color fountain or tube, natural size. Fig. 4, is a similar view of the tube holder, and Fig. 5, is a rear view of the nose piece.

A represents the body or tube holder, and B the handle. The body portion A is preferably made of brass tubing of any desired size, preferably about three eighths of an inch in diameter. Both ends of the tube are open, to receive the handle B, and the color tube C, and a portion of the top cut away as shown. At the bottom side of the body A is provided an air tube D, having a branch *a*, leading to a place of supply, of compressed air. In the branch *a* is provided a valve seat *b*, and valve *c*, and a coiled spring *d*, that holds the valve in position on the seat. The rear end of the tube D is closed as shown, the front end open, and slightly tapered on the outside as shown at *e*.

The color tube C, is preferably made of brass tubing, and of such size as to fit into the holder or body A. The front end of the tube C, is closed by a plug *f*, centrally apertured to allow the color to flow through from the tube. On the plug or end piece *f*, is provided an annular screw thread *g*, on which is turned a truncated nose piece *h*, having a small central aperture *i*, through which the color is ejected.

At the rear end of the color tube C, is provided a removable plug *j*, that serves to close the end of the tube and as a support for the needle valve *k*, by which the flow of the color from the tube C may be regulated. The front end of the needle is tapered to a point, and

adapted to close the aperture *i*, in the nose *h*. On the valve stem is provided a collar *l*, and a coiled spring *m*, one end of which rests against the plug *j*, and the other against the collar. The energy of the spring is exerted to hold the valve in the aperture *i*, to stop the flow of the fluid color from the tube. At the rear end of the valve stem is provided an upwardly projected pin *p*, by which movement of the needle valve is controlled.

At the lower side of the tube C is provided an air tube E, having a sheath portion *n* to embrace the tapered end portion of the tube D, a conduit *o* connecting the tube E with the open space inside the nose *h*, via, the conduit *o*, and the channels *o'*, on the inside of the nose.

To operate the valves *k* and *b*, simultaneously, an actuating device or lever as shown in Fig. 2, is provided, having a pin portion *q*, to pass down through the body A and tube D, as shown, to engage the end of the valve *c*. To this pin is pivotally secured a lever *r*, to which is pivotally secured a link *s*, to engage the pin *p*, on needle valve *k*.

The prime object of our invention is to provide for the use of a plurality of color holding tubes or fountains that may be quickly removed and replaced in the holder, thereby saving much time.

In operation a number of tubes will be supplied with colors to correspond with the colors required for the work in hand. The colors may be either dry or wet. The air blast is turned on, the brush taken in the hand with the fore finger resting on the head of the lever *r*, which is pressed down to open the air valve *c*, and at the same instant drawn back to open or draw back the needle *k*, to allow the color to be ejected by the air current from the tube to the canvas or paper. When one color has been applied, the lever *r* with its attachments is lifted out of the tube holder, and another placed therein, by passing the tube in the holder, and the air tube or sheath portion *n*, over the end *e*, of the tube D, and replace the valve actuating device by passing the pin *q*, down through the body or color tube holder A, and the link *s*, over the pin *p*, as shown in Fig. 1.

Having thus fully described the nature and the object of our invention, what we claim is—



1. In an air brush the combination with the tube holder, an air tube carried thereby, a color tube seated in the holder, and having a tube removably connected with the aforesaid air tube and valves for controlling the supply of coloring material and air, substantially as described and for the purpose set forth.

2. In an air brush, the combination with the tube holder formed with a channel or seat, and provided with an air tube, of a removable color tube supported in said seat, and provided with a tube removably sleeved upon the aforesaid air tube, and valves for controlling the supply of coloring material and air, substantially as described.

3. In an air brush, the combination with the tube holder and its air tube thereto attached, of a color tube removably supported by the holder, a nose secured to the discharge end of the color tube, a tube carried by the color tube, and communicating with the interior of the nose, and connected with the aforesaid

air tube, and valves to control the supply of air and coloring matter, substantially as described and for the purpose set forth.

4. The combination with holder, a removable color tube supported thereby, air tubes, a branch tube communicating with the air tubes, a spring controlled valve in said branch tube, a spring controlled valve carried by the color tube and provided with an arm, a lever having a pin engaging the valve in the branch tube, and a loose connection with the valve in the color tube, whereby when the lever is actuated both valves will be operated, substantially as described, and for the purpose set forth.

In testimony whereof we have hereunto set our hands this 27th day of June, A. D. 1894.

JOSEPH S. OVERMAN.  
WILLIAM T. WOOLSTON.

Witnesses:

W. K. MILLER,  
BURT A. MILLER.