C. EIMKE.

VALVE CONTROL FLOAT.

APPLICATION FILED NOV. 2, 1920.

1,390,892.

Patented Sept. 13, 1921.

Fig. 1.

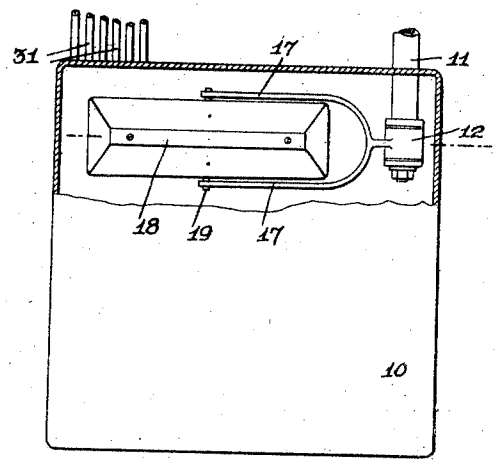


Fig. 2.

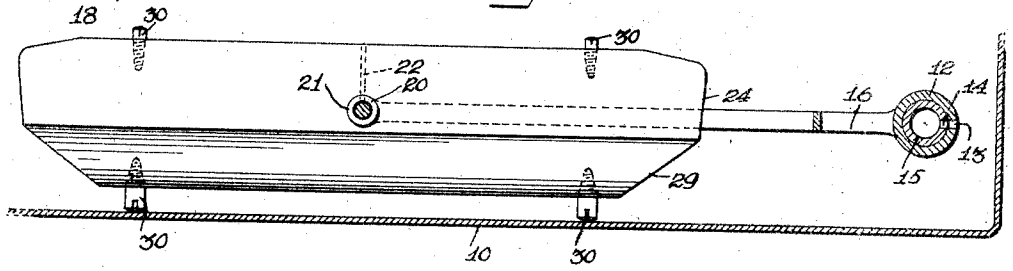


Fig. 3.

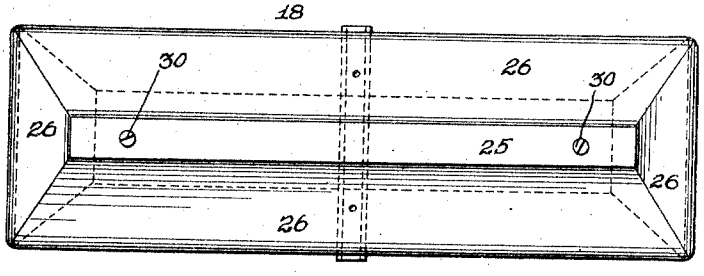
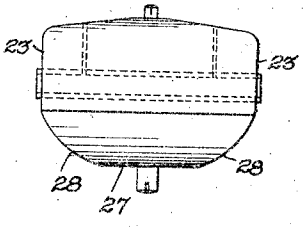


Fig. 4.



WITNESSES

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VALVE-CONTROL FLOAT.

1,390,892. Specification of Letters Patent. Patented Sept. 13, 1921.

Application filed November 2, 1920. Serial No. 421,359.

To all whom it may concern:

Be it known that I, CHARLES EIMKE, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Valve-Control Float, of which the following is a full, clear, and exact description.

This invention relates to valve control floats and refers particularly to the float construction, the same being especially designed for use in connection with the supply valves for ink reservoir tanks of large printing presses.

In the construction and form of floats now in general use, a great deal of difficulty has been experienced in obtaining a float which will positively operate under all conditions due to the tendency of the float to adhere to the gummy sediment which collects on the interior surfaces of the reservoir tank. This necessitates the constant observation of the action of the float in order to insure its proper operation to prevent an overflow and consequent loss of ink as well as the time lost incident to the cleaning up of the same.

The invention therefore contemplates and seeks for one of its principal objects to overcome the above recited objections to provide a float constructed of extremely buoyant material and provided with means to prevent the sticking or adherence of the same to the gummy sediment on the top and bottom of the tank.

Another object of the invention is to provide a float of the character described which is shaped in such a manner as to induce or enhance its lifting power under all conditions.

A still further object of the invention is to provide a float of the character described which is comparatively simple in construction, inexpensive to produce and highly efficient in its purpose.

With the above recited and other objects in view, some of which will more clearly appear hereafter, reference is had to the following specification, the appended claims and the accompanying drawings, in which;

Figure 1 is a plan view of an ink reservoir, a part being broken away to disclose the improved form of float in its applied position.

Fig. 2 is an enlarged fragmentary longitudinal sectional view through the tank and valve illustrating the float in side elevation.

Fig. 3 is an enlarged plan view of a float removed.

Fig. 4 is an end view thereof.

Referring to the drawings by characters of reference, 10 designates a reservoir tank having an inlet pipe 11 provided with any approved form of rotary sleeve valve 12. The sleeve valve 12 is provided with an inlet opening 13 which is designed to register with the inlet opening 14 of the valve body 15 when the sleeve is arranged in one position. The sleeve 12 is provided with a bifurcated arm 16 between the furcations 17 of which is arranged the float 18 which is pivotally supported therebetween upon the cross rod 19 which extends through the bearing sleeve 20 secured in the transverse opening 21 by the pins 22. The float is constructed of Balsa wood and it is of rectangular configuration. The sides 23 are vertical and the ends 24 are slightly inclined outward. The top is provided with an upper flat horizontal surface 25 having chamfered surfaces 26 connecting the surface 25 with the sides and ends. The bottom is provided with a flat surface 27 connected by the curved surfaces 28 at the sides thereof to the side walls 23. The ends of the bottom 27 are provided with beveled surfaces 29 for a purpose to be hereafter set forth. The upper surface 25 and the bottom surface 27 are provided with spaced outwardly projecting pins or screws 30 which constitute reduced bearing surfaces for engagement with the top and bottom of the tank whereby to reduce to a minimum any possibility of the float adhering to the gummy sediment which collects on the inner surfaces of the tank. By using Balsa wood, the buoyancy of the float is increased approximately from one third to one half over the hollow metallic floats now employed. The wood is preferably treated with a liquid proof coating or may be covered with a fine gage sheet metal.

In use of the valve, when the ink supply is drawn or pumped off through the distributing conduit pipes 31, the float 18 will descend, thus bringing the ports 13 and 14 into register and permitting the ink to flow into the tank through the pipe 11. As the ink flows into the tank, it will flow under the inclined surfaces 29, the curved surfaces and the bottom surface 27 to effect lifting of the float 18. The chamfered surfaces 26 of the top will afford proper drainage means should any of the ink collect on the top. The pins 30 will contact with the top and

bottom of the tank to prevent the direct contact of the top or bottom surfaces of the float with the sediment which collects thereon and will reduce adherence of the float to a minimum.

While there has been shown and described a preferred illustration of the invention, it is understood that the right is reserved to embodiments other than those actually set forth herein, to the full extent indicated by the general meaning of the terms in which the claims are expressed by variations in the phrasing of the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. As a new article of manufacture, a float for controlling the supply valves of ink reservoirs constructed from Balsa wood, said float provided with spaced pins projecting from its upper and lower surfaces.

2. A valve controlling float of the character described consisting of Balsa wood having vertical side walls, outwardly inclined end walls, reduced flat horizontal upper and lower bottom surfaces, chamfered surfaces connecting the flat upper surface with the side walls, rounded side surfaces connecting the flat lower surface with the side walls and outwardly and upwardly inclined end surfaces connecting the flat lower surface with the end walls.

3. A valve controlling float of the character described consisting of Balsa wood having vertical side walls, outwardly inclined end walls, reduced flat horizontal upper and lower bottom surfaces, chamfered surfaces connecting the flat upper surface with the side walls, rounded side surfaces connecting the flat lower surface with the side walls and outwardly and upwardly inclined end surfaces connecting the flat lower surface with the end walls, said flat upper and lower surfaces being provided with outwardly projecting pins adapted to engage the top and bottom of a tank to hold the upper and lower surfaces in spaced relation thereto.

CHARLES EIMKE.