

DESCRIPTION OF THE CUP.

Fig. 1 is a perspective view of our improved apparatus partially broken away and in section.

Fig. 2 is a sectional plan showing portion of the cups and bottles, the bottles being shown in full.

Fig. 3 is a detail of the water centrifuge.

Fig. 4 is a perspective detail of the bottle.

Fig. 5 is a longitudinal section through the bottle and necks thereof.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is a spider which is journalled on a shaft B, and comprises arms A¹ bent at the outer end and A² substantially at right angles to the main portion of the arm. C are trunnions secured in the end of the arm and D are a pair of cylindrical cups which are provided with a connecting rim D¹ having the centrally opposed lugs D², which are journalled on the trunnions C.

E are the bottles which are placed in the cups D. Each bottle is provided with a graduated neck E¹ and a substantially funnel or cone-shaped neck E² having a bevelled outer end E³. The position in which the cups and bottles are shown in the drawing is that which they assume when the machine is in motion. When the machine is stationary the cups and bottles stand upright.

F is the water centrifuge, which comprises a cylinder having upper and lower sets of perforations F¹ and F² in its periphery, each set of perforations being substantially of the same width as the outer end of the funnel-shaped neck E² of the bottle E. As will be readily seen there are two layers of bottles, which assume the horizontal position when the machine is in motion and consequently the upper and lower necks E² are directly opposite the upper and lower sets of perforation F¹ and F² respectively.

F³ is the centre tube of the cylinder, which is secured on the shaft

F⁴ is a deflecting plate horizontally disposed beneath the top of the centrifuge F and opposite the flanged opening F³, into which a funnel G is fitted in order to feed the water into the centrifuge.

H is a strainer of wire gauze or netting extending from the flange F⁵ to the deflecting plate F⁴, such wire gauze being designed to prevent dust or foreign matter passing into the centrifuge and stopping the jets F¹ or F². Both the centrifuge and the spider carrying the bottles are secured to the shaft and rotate in unison. As the machine revolves, the water in the centrifuge is forced by the centrifugal action outward in the form of a spray and is caught by the cone-shaped necks of the bottles circularly arranged as will be readily understood.

T¹ inner ends of the funnel or cone-shaped necks of each bottle are extended in somewhat the form of a curve E³ at its entrance into the bottle for the purpose previously mentioned.