motor unit **147** now rotates arm **128** through one revolution which rotates the spout end to a position over the next adjacent bottle. Then pump **56** is stopped, and pinch valve is closed so that the apparatus is ready for the next sample taking operation.

If it is desired to direct more than one sample into each bottle, for example 3, then a counter is operated each time the metering chamber is filled and the liquid contacts electrodes **42.** In this case, the motor unit **147** is energized only after three samples have been taken. This counter can also be arranged to cut off the apparatus after sufficient samples have been taken for all of the bottles.

I claim:

1. Apparatus for taking and segregating measured samples of liquid with or without solids therein, comprising a closed metering chamber, a volume control tube extending down into the chamber and having a lower end positioned above the bottom of the chamber, an inlet tube connected to the control tube for directing fluid into the chamber through said control tube, a liquid outlet tube opening into the chamber at the bottom thereof, valve means for closing and opening said outlet tube, means for selectively operating said valve means to open and close the outlet tube, a source a positive and negative pressure operatively connected to the chamber near the top thereof, control means for causing said source selectively to apply pressure and suction to the chamber, a liquid level controller for the chamber and connected to said source control means to operate said source to shut off the suction and to start the pressure when the liquid sample in the chamber reaches a predetermined level above the lower end of the control tube, said suction drawing liquid samples through the control tube into the chamber when the outlet tube is closed until stopped by the level controller and said pressure blowing liquid out through the control tube until the liquid reaches the lower end thereof and while the outlet tube is closed and out through said outlet tube when the outlet tube is open, a plurality of sample bottles mounted along a path and each having an entrance opening, and liquid distributing means connected to the outlet tube for receiving said expelled samples and mounted for movement along said path to successively direct the samples into the bottles.

2. Apparatus as claimed in claim **1** in which said valve means comprises a pinch valve operable to squeeze and release said outlet tubes respectively to close and open the outlet tube.

3. Apparatus as claimed in claim **1** in which said liquid distributing means comprises a spout having an inlet end connected to the outlet tube to receive the expelled liquid from the chamber when said valve means opens the outlet tube and an opposite discharge end, said spout being movably mounted so that the discharge end thereof can be moved along said path, and means for indexing the spout to move the discharge end thereof successively into registry with the bottle entrance openings.

4. Apparatus for taking and segregating measured samples of liquid with or without solids therein, comprising a closed metering chamber, means for drawing a sample of a predetermined volume of a liquid being sampled into said chamber, a liquid outlet tube opening into the chamber near the bottom thereof, valve means for closing and opening said outlet tube, pressure means for expelling the liquid through the outlet tube when the latter is open, a spout having an inlet end connected to the chamber outlet tube to receive the expelled liquid from the chamber when said valve means opens the outlet tube and an opposite discharge end, said spout being movably mounted so that the discharge end thereof can be moved along a predetermined path, a plurality of sample bottles mounted along said path and each having an entrance opening, each sample bottle being substantially wedge-shaped in horizontal section and having an inner small end and an outer large end, and means for indexing the spout to move the discharge end thereof successively into registry with the bottle entrance openings.

5. Apparatus as claimed in claim **4** in which said path is circular, and said spout is mounted to rotate around a vertical axis coincident with the centre around which said path extends.

6. Apparatus as claimed in claim **4** in which the inner ends of the bottles are positioned to form a space surrounded by the bottles and in which ice can be placed in contact with the bottles.

7. Apparatus as claimed in claim **4** in which the entrance opening of each bottle is located in the top of the bottle at the large outer end thereof.

8. Apparatus as claimed in claim **4** in which said indexing means comprises a movably mounted plate connected to the inlet end of the spout and mounted to move the the latter, a plurality of pins on the plate and arranged in a path corresponding in shape to the path of movement of the spout, a rotatably mounted arm positioned so that each time the arm is rotated, a portion of the arm moves into and out of engagement with one of said pins to move said one pin and said plate a predetermined distance, and means for rotating said arm to cause the plate to move the predetermined distance after a predetermined volume of liquid has been directed into each bottle.

9. Apparatus as claimed in claim **8** including means normally retaining said plate in a stationary position.

10. Apparatus for taking and segregating measured samples of liquid with or without solids therein, comprising a closed metering chamber, vacuum means for drawing a predetermined volume of a liquid being sampled into said chamber, a liquid outlet in the chamber, valve means for closing and opening said outlet, means for applying pressure to the chamber to expel the liquid through the outlet when the latter is open, means for selectively operating said valve means to open and close said outlet and operable to open the outlet when pressure is applied to the chamber after the predetermined volume of liquid has been drawn thereinto, a supporting tray, a plurality of bottles mounted in a circle around a centre on said tray, each sample bottle being substantially wedge-shaped in horizontal section and having an inner small end and an outer large end, each bottle having an entrance opening in the top thereof, a spout above the bottles and having an inlet end at said centre and a discharge end above said bottle openings, said spout being movably mounted so said discharge end can be moved over the bottle entrance openings, a tube connecting the inlet end of the spout to the outlet to the chamber, and means for indexing the spout to move the discharge end thereof successively into registry with the bottle entrance openings.

11. Apparatus as claimed in claim **10** in which the inner ends of the bottles are positioned to form a space surrounded by the bottles and in which ice can be placed in contact with the bottles.