

The said apparatus operates in the following manner:

The bottles 15, the respective weights of which are adjusted by the tare elements 17, are placed on each receiving assembly, so that the balances rock when the bottles 15 are filled with the desired quantity of water. By rotation of the frame 8, the funnel 22 of the first channel 20 is brought to a position below the pouring spout 3. The apparatus is now ready for operation.

During a precipitation, the water collected by the funnel 1 flows through the pouring spout 3 and the funnel 22 into the first bottle 15. When this first bottle 15 has been filled with the desired quantity of water, any further drop of water causes the balance member 14 of the first receiving assembly to rock. This rocking movement causes rocking movement of the rod 18 and of the bearing bracket 19 which moves the funnel 22 from the pouring spout 3 and places the channel 20 below the pouring spout. The bottle 15 and the funnel 22 are thus put "out of circuit." The pouring spout 3 then feeds the first channel 20, which by means of its pouring spout 21 and of the funnel 22 of the second channel fills the second bottle 15 and so on.

When the last bottle has been filled, the beam member 14 of the last receiving assembly rocks in its turn, which has the effect of placing the pouring spout 21 of the last channel above the funnel 24 feeding the overflow tank 23. If the precipitation is heavy, this latter tank 23 can itself fill and its overflow spout will discharge the excess liquid towards the outside of the apparatus by way of the pouring spout 25, the funnel 26 and the pipe 27.

The filled bottles can be easily removed by turning the frame 8 which brings them successively opposite the door 5, and then their contents can be analysed. These bottles are then replaced by other similar bottles which, after adjustment of the tare elements 17, will be ready for a new fractionation operation.

By means of this apparatus, specific fractions of collected precipitation are obtained which have been led directly to the bottles in which they are to be analysed without having had any stay in any intermediate member. All the radio-active particles contained in these precipitations have therefore been carried to the bottles and sedimentations which may be produced subsequently do not endanger the accuracy of the measurements to be effected.

The application of this apparatus is furthermore in no way limited to the measurement of radio-activity. It could of course be used for any measurement or analysis of collected precipitations since the latter are in no way detrimentally affected in the course of being bottled.

We claim:

1. Fractionizing receiving apparatus for atmospheric precipitation, comprising: a collector having an outlet; a plurality of rocking supports, each for mounting thereon a container for receiving in succession precipitation from said collector; a feeding channel rigidly mounted on each of said rocking supports for disposition above the container of the same support; a funnel rigidly mounted on one of the lateral surfaces of each of said channels on each of said supports and at one end of the respective channel for disposition above the container of the same support with its outlet disposed for communication with the mouth of the container of the same support; the other end of each feed channel being provided at its lower portion with a feed spout for communicating successively with the funnel and with the channel of the support and container to subsequently receive precipitation, said supports being arranged for successive rocking movement between a first position with the mouth of the funnel mounted thereon in communication with said collector outlet and a second position with the feeding channel in communication with said collector outlet.

2. Fractionizing receiving apparatus for atmospheric precipitation, comprising: a collector having an outlet; a plurality of rocking supports, each for mounting thereon a container for receiving in succession precipitation from

said collector; each of said rocking supports comprising a balance beam member supported intermediate the opposite ends thereof, one of the ends of each of the beam members providing a mount for the container, the other end of each of the beam members being loaded with a counter-weight, a feeding channel rigidly connected with the balance beam member of each of said rocking supports for disposition above the container of the same support; a funnel rigidly mounted on each of said supports for disposition above the container of the same support with its outlet disposed for communication with the mouth of the container of the same support; said supports being arranged for successive rocking movement between a first position with the mouth of the funnel mounted thereon in communication with said collector outlet and a second position with the feeding channel in communication with said collector outlet.

3. Fractionizing receiving apparatus for atmospheric precipitation, comprising: a collector funnel in the form of an inverted cone whose apex is provided with a fixed outlet pipe; a plurality of rocking supports, each for mounting thereon a container for receiving in succession precipitation from said collector; a feeding channel rigidly mounted on each of said rocking supports for disposition above the container of the same support; and a funnel rigidly mounted on each of said supports for disposition above the container of the same support with its outlet disposed for communication with the mouth of the container of the same support; said supports being arranged for successive rocking movement between a first position with the mouth of the funnel mounted thereon in communication with said collector outlet pipe and a second position with the feeding channel in communication with said collector outlet pipe for successively feeding a first funnel and a first channel.

4. Fractionizing receiving apparatus for atmospheric precipitation, comprising: a collector having an outlet; a plurality of rocking supports, each for mounting thereon a container for receiving in succession precipitation from said collector; a feeding channel rigidly mounted on each of said rocking supports for disposition above the container of the same support; a funnel rigidly mounted on each of said supports for disposition above the container of the same support with its outlet disposed for communication with the mouth of the container of the same support; said supports being arranged for successive rocking movement between a first position with the mouth of the funnel mounted thereon in communication with said collector outlet and a second position with the feeding channel in communication with said collector outlet and means for limiting the extent of rocking movement of each of said supports between said first and said second positions.

5. Fractionizing receiving apparatus for atmospheric precipitation, comprising: a collector having an outlet; a plurality of rocking supports, each for mounting thereon a container for receiving in succession precipitation from said collector; a feeding channel rigidly mounted on each of said rocking supports for disposition above the container of the same support; a funnel rigidly mounted on each of said supports for disposition above the container of the same support with its outlet disposed for communication with the mouth of the respective container, each of said supports and channel being disposed at a higher elevation than the support and container positioned to subsequently receive precipitation from said collector outlet and arranged for successive rocking movement between a first position with the mouth of the funnel mounted thereon in communication with said collector outlet and a second position with the channel mounted thereon in communication with both the collector outlet and with the funnel of the support of next lower elevation.

6. Fractionizing receiving apparatus for atmospheric precipitation, comprising: a collector having an outlet;