

[CONTRIBUTIONS FROM THE CHEMICAL LABORATORY OF OBERLIN COLLEGE.]

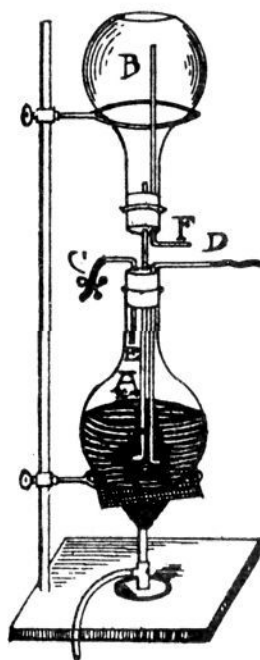
## AN ARRANGEMENT FOR WASHING PRECIPITATES WITH BOILING WATER.

BY FRANK F. JEWETT.

Received February 7, 1895.

IN using the ordinary wash-bottle for boiling water, the mouth-piece is not infrequently so much heated by escaping steam that the lips, when applied to it in the usual manner, are either uncomfortably overheated or positively burned. To avoid this result the apparatus, herein described, was devised, and has worked with perfect satisfaction.

Two flasks are arranged as shown in the figure. To the lower one, A, is fitted a rubber stopper through which pass three glass tubes. A short one, bent at right angles, just enters the flask, and to its outer extremity is attached a short rubber tube provided with a spring clip C.



A long tube reaches to the bottom of the flask and extends six or eight inches at right angles from a point just above the stopper. To its outer end is attached a rubber tube a few inches long, into which is fitted a glass jet, G, bent at right angles and wound about with a strip of felt or other non-conducting material. A third tube, E, extends from the bottom of the lower flask just through the stopper of the upper flask B, which is also provided with the tube F reaching to the top of the flask.

To use the apparatus, the water is heated to gentle boiling, the steam passing out through the open clip C. When a precipitate is to be washed, the clip is closed and the pressure of the steam at once drives the water out through the tube D. By clasping the non-

conducting cover of the jet G with the thumb and finger, the stream of boiling water may be directed to any place desired. Any excess of pressure simply drives the water slowly through the tube E into the upper flask, from which the air escapes through F.

When a sufficient quantity of water has been used, the clip is opened, the jet G raised, and the water immediately returns to the lower flask.

OBERLIN, OHIO.

---

## INTERPRETATION OF SOME RESULTS IN THE ANALYSIS OF EXTRACTS OF FUSTIC.

BY CHARLES S. BOYER.

Received April 13, 1895.

SOME time since, the writer made several analyses of samples of extract of fustic, the method of whose manufacture was at the time unknown. Since there are no recorded analyses of extracts of fustic, so far as I can find, it was thought that a statement of the results and conclusions might be of interest to those engaged in this line of work.

The method of analysis employed is briefly as follows: Five to six grams of the extract were carefully dried in a water-bath until no further loss occurred, the loss being regarded as water. Two to four grams of this dry powder was now put into a Soxhlet extractor and thoroughly and repeatedly exhausted with *absolute* alcohol, the alcoholic extract distilled, and the residue dried and weighed. The residue was in every case treated with boiling water and tested for *morin* and *maclurin* (*morin-lannin*), the former by adding to one portion a few drops of aluminum sulphate and the latter by adding to another portion some ferric chloride, but in each case with negative results. The residue from the alcoholic extract was ignited in a platinum crucible and the ash subtracted from the matter soluble in absolute alcohol. For the ash percentage, five grams of the powder was carefully ignited in a capacious platinum crucible and the resulting ash weighed.

The results of the analysis of three extracts of fustic found upon the market, together with those of two extracts whose methods of manufacture were known, are put into a table below.