

more than \$12.00 or \$14.00. The case is 18 inches long, 5 inches wide, and 9 inches high. Inside it contains the following chemicals in three ounce bottles :

Standard solution of Nitrate of Silver.
 Sol. of yellow Chromate of Potash.
 Solution of Soap.
 Solution of Nitrate of Barium.
 Two shaking bottles for soap test.
 Nessler's solution.
 Dilute Sulphuric Acid.
 Sol. of Iodide of Potassium and Starch.
 Standard Solution of Ammonium Chloride.
 " " Permanganate of Potassium.
 Oxalate of Ammonium.

The apparatus consists of :

1 Flask with ring for boiling.
 2 India rubber caps with two necks.
 1 retort stand.
 1 Burette with clamp.
 India rubber tubing.
 Spirit lamp.
 5 Test tubes
 Glass rod.
 " measure 50 C. C.

In the examination of water, the coarser physical characters such as colour, smell, taste and transparency should first be noted. The *colour* is best observed by pouring the water into a tall glass vessel and looking down upon it. A perfectly pure water has a bluish tint, and the bottom of the vessel is clearly seen through several feet of water, while some waters are so turbid as to obscure the bottom when only a few inches are looked through. A green colour as a rule indicates vegetable impurity, a yellow or brown colour (excepting in peat water), animal impurity. *Smell* is best observed by warming, boiling, or distilling the water, when characteristic odors are frequently given off. The evidence derived from an examination of the physical characters is very unreliable, we must therefore proceed to an examination of the dissolved solids, which gives us the most valuable evidence. The examination is divided into the qualitative and quantitative.