

placed the tube in position perforated stopper into a porous battery cell to show the jet, Fig. 22. The instant diffusion of gases. It is best to have a rubber stopper for stopcock in the funnel. This is purpose, but if one cannot be obtained an ordinary cork may be regulated when burning may be made air-tight with plastic sealing wax, and fitted which cannot be done if into the battery cell.

comes from a flask when the gas is being generated. If a Florence flask is used to generate the gas, have in the large class, the simplest method of illustrating this is to stopper a funnel with a stopcock. When the gas just ceases to come off pour water into the funnel and invert it downwards into a bottle of water. Have each student do arrange as in Fig. 22. The experiment.

as may then be regulated. *Air is Soluble in Water.*—In class work one of the best methods is to half fill an evaporating dish or mortar with water and into it place an inverted test-tube full of water in under the jar and turn it which no air is visible. Let the test-tube project over the edge of the cylinder and the edge of the dish. Gently heat the test-tube above the edge of the dish until the water is converted into steam and descends into the test-tube. Now take away the lamp and allow the water to rise. Repeat two or three times and allow the water to cool. A bubble of air will be found at the top of the test-tube.

LIQUIDS AND GASES.

is through a membrane (tie a piece of parchment to a funnel or thistle tube by tying on the membrane). Then take a piece of oil put into it one or two drops of oil. Now pour in a little water until it becomes a mixture of oil and water, half fill a test-tube with water, and pour the mixture of oil and water into it. The drop of oil floats out into the mixture of the water and oil. The density as itself where its form may be studied. This is sometimes used as an illustration of surface tension.

so as to make it reasonable experienced in fitting