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The young man's book of amusement

Halifax, 1848

Instantaneous Light Apparatus

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jet-pipe and flame are plunged under water; with due precautions, the flame will continue to burn with undiminished energy, in actual contact with the water, which latter, in a tumbler holding about half-a-pint, will quickly become heated from about 56 degrees to 170 degrees of Farenheit.

Instantaneous Light Apparatus.

The extremity of a fine platina wire is to be rolled into a spiral form, and then dipped in ammoniamurate, or muriate of platina, until about two grains are taken up; after which it is to be heated red-hot in a spirit lamp. In this way a quantity of spongy platina is formed on the wire so minute, that if put in contact with a mixture of oxygen and hydrogen, it becomes heated, and inflames the glass as rapidly almost as if an electrical spark had passed. Such a wire as this, fixed on the jet pipe, so that the spongy metal shall be exposed to the current of hydrogen, immediately inflames it. It happens that if an instrument of this kind has been exposed for some hours to a humid atmosphere, the inflammation does not take place readily, but in this case, if the top of the platina be touched by the finger or palm of the hand, either before or during the time that the current of hydrogen is passing out, the inflammation immediately takes place. Contact, indeed, is not necessary, for the mere approach of the hand is suf-

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ficient to elevate the temperature so much as to cause instant inflammation.

An Apparent Impossibility.

A glass shall be quite filled with rain-water, yet substances shall be added and it shall not run over. Dissolve a portion of salt in the water; after which it will receive a certain quantity of sugar, and after that a certain quantity of alum, and perhaps other dissoluble bodies, and not increase its first dimensions; which proves that fluids have vacuities, or are not perfectly dense.

To Produce a Scarlet Pattern on a Black Ground.

Boil a piece of white muslin, or calico, for a few minutes, in a solution of acetate of iron, and dry it strongly near a fire. Having done this, rinse it in water, and dye it black, by boiling it for a short time with a few chips of logwood and water; and lastly, clear it of the superfluous dye, by rinsing it in water. Then suffer the dyed cloth to dry again, and sprinkle it over with lemon-juice, or dilute muriatic acid. It will then be seen, that, wherever the lemon juice is applied, it will turn the dyed stuff of a scarlet colour; and in this manner any pattern may be produced upon a black ground, upon calico or linen cloth.