

Badische Landesbibliothek Karlsruhe

Digitale Sammlung der Badischen Landesbibliothek Karlsruhe

The young man's book of amusement

Halifax, 1848

To Procure Hydrogen Gas

[urn:nbn:de:bsz:31-100120](https://nbn-resolving.org/urn:nbn:de:bsz:31-100120)

nails, over that part of the table where the magnet is, and requesting the loan of a knife or key, apply it to the filings, and it will have the same effect on the larger ends of these as a magnet would. Then placing your hand as if carelessly on the pin at the bottom of the table, alter the position of the magnet, and giving the key or knife to any one you will disappoint, he will be unable to perform the experiment as you have done; changing the pin's influence again, you may shew that you have these things at command.

CHEMISTRY.

FOR many of the experiments mentioned in this book, useful apparatus may be made with a common Florence oil-flask, divided into two parts by means of a thread, previously dipped in oil of turpentine, tied round the middle and ignited; the upper part will make a good funnel, the other will contain chemical ingredients, which may require to be held over a flame.

To Procure Hydrogen Gas.

Provide a phial with a cork stopper, through which is thrust a piece of tobacco-pipe. Into the phial put

a few pieces
a mixture,
(nitric), and
prevent acci
the piece of
will then be
stream. A
stream, and
with a clear
exhausted.
the action o
solved, thi
acid and w
part of the

To F

Apply a
sed, in ord
the piece of
of the phia
The bladder

Hydrogen
be exhibited,
light derive

a few pieces of zinc, or small iron nails; on this pour a mixture, of equal parts of sulphuric acid, (oil of vitriol), and water, previously mixed in a tea-cup, to prevent accidents. Replace the cork stopper, with the piece of tobacco-pipe in it; the hydrogen gas will then be liberated through the pipe into a small stream. Apply the flame of a candle or taper to this stream, and it will immediately take fire, and burn with a clear flame until the hydrogen in the phial be exhausted. In the experiment, the zinc or iron, by the action of the acid becomes oxygenised, and is dissolved, thus taking the oxygen from the sulphuric acid and water; the hydrogen (the other constituent part of the water) is therefore liberated and ascends.

To Fill a Bladder with Hydrogen Gas.

Apply a bladder, previously wetted and compressed, in order to squeeze out all the common air, to the piece of tobacco-pipe inserted in the cork stopper of the phial, (as described in the experiment above). The bladder will thus be filled with hydrogen gas.

Pure Flame.

Hydrogen gas furnishes the purest flame that can be exhibited; for the flame of bodies that emit much light derive that power from solid bodies intensely