

end of the tube under one of the holes of the pneumatic trough which has been previously filled with water, so as to completely cover the shelf. Now apply heat to the flask, and in a short time bubbles will be seen to rise through the water. The first of these are air, and should be allowed to escape. If a jar be filled with water, and placed mouth downward over the tube, the oxygen will soon expel the water, and remain in the jar.

Oxygen is an odorless, tasteless, colorless fluid; it is heavier than air, in the proportion of about 11 to 10; it is the sustaining principle of animal life and of all the ordinary phenomena of combustion. Bodies which burn in the air burn with greatly increased splendor in oxygen gas. If a taper be blown out, and then introduced into the gas while the wick remains red hot, it is instantly rekindled. If a bit of charcoal be affixed to a wire, and plunged with a single point red hot into a jar of oxygen, it burns with great brilliancy. If a piece of roll sulphur be set on fire, and placed in a jar of this gas, it will burn with a beautiful purple-blue flame, and evolve a much more intense heat than when burned in common air. Phosphorus burns with such an intense light that the eye can scarcely bear to look at it. But perhaps the most beautiful experiment of combustion in oxygen is made by means of an iron wire, or better, a watch spring; dip one end of the watch spring into some sulphur, and attach the other to a cork which will fit the neck of the jar containing the oxygen, light the sulphur, and place the wire in the jar, the sulphur bursts into full flame and kindles the iron which burns with great brilliancy, sending forth a shower of white stars, while the melted iron, known as the black oxide of iron, sinks to the plate below.

## NOVA SCOTIAN GEOLOGY.

BLOMIDON AMYGDALOIDS, *in situ and transported.*

### PAPER I.

By REV. D. HONEYMAN, D. C. L., F. R. S. C.

#### *In Situ.*

At Blomidon, between Pereau and Scot's Bay, a rock called Amygdaloid was observed in great mass. It is so named as it contains *amygdules* of minerals, having something of the appearance of *kernels of almonds*. This rock was once a *lava*, which, on cooling, assumed a vesicular texture. The cavities were subsequently filled with minerals of various kinds, *e. g.*, Zeolites, Calcites, Chalcedonies, etc.

#### TRANSPORTED.

Boulders of this rock are to be seen in abundance about Wolfville and the side of the Estuary of the Avon. Upwards of twenty years ago my attention was attracted to the latter lying beside the Lower Carboniferous limestones above the old Avon Bridge. Prof. How told me that they came from Blomidon.

On the Queen's Birthday, 1873, when walking with a friend on the beach of Cow Bay, East of Halifax, I noticed boulders on the shore which I at once recognized as *Amygdaloids* from Blomidon. This circumstance was for some time perplexing. At length in our wandering we reached a head on the East side of the Bay. Here I observed a bluff of clay and stones about 50 feet high, out of which were falling in abundance Amygdaloid boulders of all sizes, replete with amygdules of Stilbite, Heulandite, and other minerals. I also found a boulder of mossagate. Here, then, was the secondary source of the supply of the shore boulders.