The Forest Trees.

BY ELIZA COOK.

Up with your heads ye sylvan lords, Wave proudly in the breeze, For our cradle bands and coffin boards Must come from the forest trees.

We bless ye for your summer shade, When our weak limbs fail and tire Our thanks are due for your winter aid, When we pile the bright log fire.

Oh! where would be our rule on the sea, And the fame of the sailor band, Were it not for the oak and cloud-crowned pine, That spring on the quiet land?

When the ribs and masts of the good ship live, And weather the gale with ease,

Take his glass from the tar who will not give A health to the forest trees.

Ye lend to life its earliest joy, And wait on its latest page ; In the circling hoop for the rosy boy, And the easy chair for age.

The old man totters on his way With footsteps short and slow But without the stick for his help and stay Not a yard's length could he go.

The hazel-twig in the strippling's hand, Hath magic power to please; And the trusty staff and slender wand Are plucked from the forest trees.

Ye are seen in the shape of the blessed plough, And the merry ringing flail;

Ye shine in the dome of the monarch's home And the sacred altar-rail.

- In the rustic porch, the wainscotted wall-In the gay triumphal car-
- In the rude-built but or the banquet hall, No matter ! there ye are !

Then up with your heads, ye sylvan lords, Wave proudly in the breeze; From our cradic bands to our coffin boards

We're in debt to the forest trees.

-----BRITISH POLYTECHNIC FIRE.

On Saturday evening there was a private view at the Polytechnic Institution of the "new fire," recently patented by Dr. Bachhoffner and Mr. Defries. The process consists in substituting for coals in the ordinary grate, thin laminæ of inde-structible metal, which being acted upon by gas, instantly become red hot, and expose a large amount of radiating surface, securing a cheerful bright open fire. It is proposed to employ a non-carbonised gas, obtained from the decomposition of water, which has no unpleasant smell or injurious effect incident to the use of any other There is a complete absence of smoke, gas. dust, ashes, soot, sparks, and other annoyances which attend upon the present system of coal fires. It can be lighted at a moment's notice, and the material being indestructible, the only | causes-stuffing and fretting.

expense is that of the gas, which can be supplied at the cost of 1s. 6d. per 1000 feet. The advan-tages are manifold. The gas is not open to the usual objections entertained against its adoption in private residences. It is perfectly clean, gives a great heat capable of being regulated to the greatest nicety, and consequently well adapted for culinary purposes. For this reason also it will prove a great boon to invalids. From experiments which have been made, the saving is about 30 per cent. over that of a coal fire, the cost for a single one in a large room being about 3d. per day. In a sanitary point the benefit conferred will be immense; for the heat produced from the combustion of gas far exceeds that of any other material, and the atmosphere will at once be relieved from the injurious effects of smoke, either from dwelling-houses, furnaces, or factories. There is, therefore, no longer any reason why the atmosphere of the metropolis and other densely crowded cities should not be rendered as clear and uncontaminated as that of the purest country district. It is the intention of the patentees to form a company to carry out this invention, and to apply for an Act of Parliament.

NO MATTER DESTROYED IN COMBUSTION.

When a body is subjected to the action of heat, its elements are decomposed, and its constituent particles separated, many of them combine with other particles of matter, and form new substances possessing other qualities. Thus, when coal or other fuel is burned, the carbon enters into combination with one of the constituents of the atmosphere called oxygen, and forms a gaseous substance called carbonic acid, which rises into and mixes with the atmosphere. Another element, hydrogen, combines with the same constituent of the atmosphere and forms vapour, which also disperses in the atmosphere. Sulphur, which is also occasionally present in fuel, combines with the same constituent of the air, forming a gas called sulphureous acid, which also escapes into the atmosphere. Thus the entire matter of the fuel, with the exception of a small portion of incombustible matter, which falls into the ash-pit, is dispersed in the air, and no destruction or annihilation takes place. That no portion of the matter of the fuel is destroyed or annihilated can be established by the incontrovertible experimental proofs of the chemist, for by the expedients of his science all the products of the combustion which have been just mentioned can be preserved, weighed, and decomposed. The oxygen which has entered into combination with each element of the fuel can be reproduced, as well as the constituents of the fuel itself, the latter of which being weighed, as well as in the incombustible ash, the weight of the whole is found to be precisely equal to the weight of the fuel which was burned and apparently destroyed.

JOHN ABERNETHY, the eminent surgeon, used to tell his scholars that all human maladies arose from two