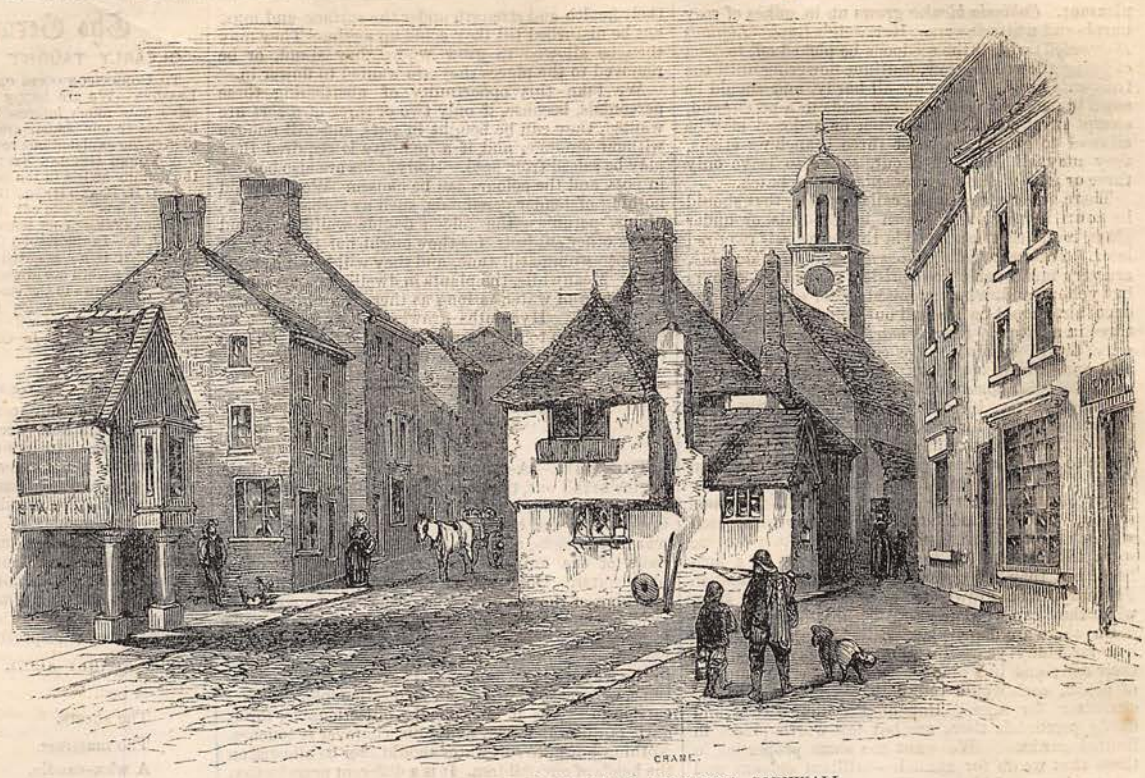
the plan would virtually bring the savings-bank within less than an hour's walk of the fireside of every working man in the United Kingdom, we believe that it would render aid in ultimately winning over the rank and file of the industrial classes of the kingdom to those habits of forethought and self-denial which bring enduring reward to the individual, and materially add to the safety of the State.

THE INVENTOR OF THE SAFETY LAMP.

EXPLOSIONS in coal mines, and the awful destruction of human life they occasion, still occur at intervals, and a multitude of widows and orphans gathering round the shaft, recognise, with the wildest expressions of grief, or with sorrow too deep for utterance, the mangled remains of the poor sufferers as they are brought up from the pit. Most persons are aware that an enormous quantity of light carburetted hydrogen is generated from coal, and that this, combining with the air of the mines, forms an explosive compound, which is excited by the flame of a lamp or candle. In former times explosions, accompanied by the most fearful consequences, were far more frequent than they are now. The comparative impunity with which the miners are at present enabled to prosecute their labours beneath the surface of the earth, arises from the common use of an ingenious apparatus known as the safety lamp. It is a kind of lantern, covered with a fine wire gauze instead of glass or iron, which prevents the flame coming into contact with the explosive gas of the mine.



BIRTHPLACE OF SIR HUMPHRY DAVY, PENZANCE, CORNWALL.

This safety lamp, far more useful than Aladdin's, will for ever make the name of its inventor honoured and beloved, and render his memory as dear to humanity as it is to science. Sir Humphry Davy—for it is to this distinguished man we are indebted for the safety lamp—was born in the mining districts. He knew and felt for the busy underground population; he understood the risks to which they were constantly exposed in their dangerous occupation; his heart felt, his mind planned, and he gave them the help which they required. The need of such help as science could render was especially requisite in the coal-mining districts. Though not the only element of our mercantile power and political superiority, coal is essential to our national prosperity; and could we suppose such an event as the exhaustion of our coal mines, it would suggest the final destruction of our greatness. The annual production of coal in Great Britain may be estimated at about 40,000,000 tons, and it employs more than 100,000 persons. Our annual exports are calculated at upwards of 2,000,000 tons. The annual produce of the coal mines of the United States of America is less than one-eighth of that of Great Britain; although the area of our coal fields is only about 8,000 square miles, and those of America are stated to be about 134,000. From these coal fields of ours springs one great source of our prosperity; and this source cut off, our furnaces would be extinguished, our railways and steam fleets lifeless, our manufactures paralysed. In former days throughout our mining districts the most awful waste of life was continually occurring. The choke-damp and fire-damp accumulated in the pits, ignited when the lamps were brought near by the colliers, and the most terrific explosions followed. Davy invented his lamp, and he did this without securing the invention by any patent which would have enriched himself—but he laid it freely on the altar of humanity.

Among the many scientific Englishmen who have conferred honour on the country of their birth, few enjoy a higher reputation than Humphry Davy. It is gratifying to know that he was a self-helpful man. Unknown to rank, unassisted by wealth, aided alone by the force of his own perseverance and genius, he became the sole architect of his great fame, and early in life attained the highest eminence of scientific distinction. The early scenes which surrounded such a man must ever possess an interest to the thoughtful mind. To look upon the place where his studious youth was passed, to view the natural objects that ministered to his love of the beautiful, and that cultivated in him the faculty of taste, to stand in the little room that served him both for study and repose, are all so many means of bringing the man more prominently before the mind, and refreshing the heart by the contemplation of industry and patience struggling successfully against a multitude of difficulties.

Humphry Davy was born in 1778. He was the eldest of a family of five. He was a child of buoyant spirits, and would amuse his companions for hours together with rhymes and stories of his own composition; even the severe pedagogue, under whose discipline he suffered much hard usage, could not quite destroy the youngster's spirit. When he was sixteen years old his father died, and the family were plunged into fresh distress. This calamity, however, was greatly alleviated by the enterprise, industry, and good sense of the widow. She apprenticed Humphry to a surgeon and apothecary of Penzance, and there the future philosopher began his battle with the world. A part of Mrs. Davy's income was derived from taking lodgers, and among them was Mr. Gregory Watt, the son of the distinguished engineer, James Watt. He noticed the studious disposition of the young chemist, and the indomitable perseverance of his dawning genius, and a free and constant friendship sprung up between them. Dr. Beddoes, of Bristol, about this time, made the most wonderful discovery he had ever made in his life—*he discovered the genius and worth of Humphry Davy.* The Doctor was then making experiments on the gases, and he offered the young chemist the appointment of superintendence of the Pneumatic Institution. His indentures had not yet expired, but his master kindly gave them up, and permitted him to pursue his successful career.

When little more than twenty-three years of age, Davy was appointed lecturer on chemistry to the Royal Institution, London; at the age of thirty-four he received the honour of knighthood; and the whole course of his life was marked no less by virtue, simplicity, and cheerfulness, than by scientific acquirements of the most important character. He died on the 28th of May, 1829.

In the midst of his triumphs Sir Humphry Davy was never ashamed of his obscure origin. He never forgot the friends of his youth, and always entertained a warm affection for old scenes. The old house in Market Jew-street, Penzance, still held a place in his memory; and with pleasurable emotions he looked upon the little *sanctum*, where of yore he had bent over his home-made apparatus of phials, tea-cups, wine glasses, and tobacco pipes, and had tasted with unutterable joy the refreshing stream of scientific truth. The example of perseverance given by such a life as that of Davy is even more valuable than any scientific discoveries or successful experiments made by him. The young and unaided, instead of moaning over their difficulties, and sitting down in contented ignorance to drone and dream away their lives, will do well to think of the old house in Market Jew-street, Penzance, and reflect that in that humble abode dwelt a student, who so stored his mind that he came out of his obscurity and took his place among the great and noble of the land. And what was more, employed the talents he possessed for the advancement of intelligence and the good of society. We can understand and appreciate, and we should do well to emulate Sir Humphry Davy, when he says, in a familiar letter to his mother, "What I am, I have made myself; I say this without vanity, and in pure simplicity of heart."

The Amateur Gardener.

BY GEORGE GLENNY

As the choice of plants in a small garden is of the utmost importance (and the catalogues contain such vast numbers that one of a sort would fill an acre), we shall select and describe a few that we consider easy of culture, and certainly the most effective during their growth and bloom. We look upon some qualities with a favourable eye: brilliancy of colour and long season of flowering are desirable properties.

Nemophila insignis is a hardy annual, to be sown when the weather breaks in spring; it grows three or four inches high, and bears an abundance of bright blue flowers, with a white centre. *Coreopsis Tinctoria* is a taller plant, very elegant in its growth, to be sown at the same time, bearing yellow flowers, with a dark centre, and continuing in bloom a long time. *Sweet Peas* are climbing plants, growing three feet high, of various colours, rich perfume, and, if the peas be cut off directly the bloom fades, instead of being allowed to swell, they will continue to flower for months. *Mignonette* is grown for its scent alone; there is nothing in its appearance beyond a common weed, but its fragrance is exceedingly