

A proportion of arms, before mentioned, will be furnished by Government; and ammunition, at a certain rate per man, at cost price. As, in the event of their being called into active service, the rifle corps will be exclusively armed with that description of rifle used generally by the army; and as only ammunition adapted to the gauge of those arms will at any time be issued, it is advisable that those arms provided by the corps should not exceed .570 of an inch in bore. Requisitions for ammunition will be made on the Secretary of War; and those periodical returns, enjoined by military usage, of the state and discipline of corps, will be rendered to the Lord Lieutenant.

Each rifle company will be entitled to receive instruction for three months, from two sergeants of militia, in the usual drills. These instructors are to be remunerated for their services. When corps have attained sufficient acquaintance with drill and dexterity in the use of arms to enter on the nicer practice of musketry, instructors for that purpose will be similarly furnished on the same conditions. Two members of each corps are permitted to attend the School of Musketry at Hythe, at their own expense, to qualify them to instruct their respective companies. Commissioned officers are also permitted to be temporarily attached to the royal army, or the militia, for the like purpose. That the same principles of drill and instruction may be established in the volunteer force that are enforced in the army, it is recommended that a manual, published by Clowes and Son, 14, Charing Cross, should be generally used.

It is enjoined, in conclusion, that time should not be misapplied in attempting to drill or organise rifle volunteers like troops of the line, but rather that the force should acquire proficiency in the use of its particular arms, so as to act at need as an efficient auxiliary to the regular army—the only character whereof it may consistently aspire.

THE LAWYER OUTFONE.

SIGNOR DANDINI was a foreign refugee, living in the neighbourhood of Leicester-square. We cannot give any more precise account of his whereabouts, as the signor's address had always been kept a most profound secret—several of his creditors, in fact, being most anxious to penetrate the mystery. The signor picked up a living by translating documents from foreign languages for different houses in the city. One day a letter arrived, addressed to the signor, at one of these houses, stating that if he would call on the next Thursday, at two o'clock, at the offices of Messrs. Skinnum and Eatum, solicitors, of ——— street, they would be happy to arrange with him about a translation which would probably bring him in a pretty considerable sum. The signor was in a dilemma. The pretty considerable sum would be most acceptable, of course; but then he had strong objections to throwing himself in the way of unknown solicitors. However, at the time appointed, a foreign-looking individual presented himself at the office of Messrs. S. and E., and handed in the letter addressed by that highly respectable firm to Signor Dandini.

"I have received this letter," said he, with a strong German accent.

"Ah, to be sure," said Skinnum, the principal partner, who happened to be present, "Signor Dandini?"

The foreign-looking individual bowed, without speaking.

"Ah, my dear sir," continued Skinnum, smiling, "the fact is I am sorry we have been compelled to have recourse to a little stratagem, but not knowing your address, we had no other means of getting at you—I have to serve you with this writ!"

The foreign-looking individual did not seem in the least surprised. He answered—

"Hah, yes, mein dear sir. But we have had recourse to one little stratagem too. I am not Dandini. I am one friend of his. He was afraid of this—so asked me to come to see about your letter. Good morning, mein dear sir."

The foreign-looking individual left the office, and Messrs. Skinnum and Eatum confessed they had been "done."

POST-OFFICE SAVINGS-BANKS.

THE Archbishop of Canterbury, in words pregnant with wisdom, has remarked:—"The only true secret of assisting the poor is to make them agents in bettering their own condition." Long has this principle been allowed to lay dormant; but the present age is witnessing a gradual recognition of its inestimable value. More widely still will it have to be

evoked before it arrests that tide of improvidence which keeps its countless victims in worse than Egyptian bondage. Where improvidence reigns, poverty, hunger, and utter want, too often follow in its train. Improvidence costs the industrious classes of this realm some millions of money per annum, and, if it could be banished, their pockets would be enriched by as many millions as are now wantonly lost. The good work has begun, and, amongst kindred institutions, the savings-bank holds a foremost place, as rendering invaluable aid. In our opinion, to have a deposit with a savings-bank should be the earnest endeavour of every artisan and labourer in the three kingdoms. "The glorious privilege of being independent," especially in advanced life, is worthy of a long and noble struggle. But, as gold may be bought too dear, so the savings-bank may, in many instances, be at such a distance from working men, that, to become depositors, would involve a loss rather than a profit. In many hundreds of populous localities such is the very condition; and fifteen counties in the United Kingdom are entirely without savings-banks. We rejoice that a plan to remedy this great social anomaly is now under public consideration. Mr. Charles W. Sikes, of the Huddersfield Banking Company, has for some years interested himself in the progress of savings-banks. In 1850 he addressed a letter to Edward Baines, Esq., warmly advocating penny savings-banks. He afterwards published that admirable address to working men, "Good Times; or, the Savings-Bank and the Fireside."

We here propose to give an outline of the plan of post-office savings-banks as embodied in his letter (recently published as a very small pamphlet) to the Chancellor of the Exchequer. The various statistics quoted by Mr. Sikes are most interesting. He reviews a period of twelve years, and, comparing the exports of 1846 with those of 1858, finds that the declared value has increased nearly 100 per cent.; and, inferring that there must have been a corresponding increase in the relative aggregate amount disbursed in wages, he asks, if that increased amount of wages is wisely administered by its recipients? As one test, Mr. Sikes refers to that bank of the people—the savings-bank; but the Parliamentary return for the years mentioned furnish an unfavourable reply.

In 1846 the aggregate receipts of all the savings-banks in the United Kingdom were £7,300,367. In 1858 they were £7,901,925, being a progress of only 7½ per cent. in twelve years! Mr. Sikes estimates the income of the working classes of the United Kingdom as probably now reaching £170,000,000 per annum; but especially guards against their being unduly reproached for improvidence, when, of the 597 existing savings-banks, about fifty are open for only four hours monthly; and 262 for only one to two hours per week. Such is the effect of these limited hours, and other restrictions, that there are 331 savings-banks where receipts from depositors average about a dozen per week!

Another branch of the public service presents very different statistics. Under the guidance of him whose name is now a household word, the post-office has had an unrivalled career of prosperity, and its money-order department shares in the progress. Within the twelve years, 1846 to 1858, the money-orders issued have increased 79 per cent. in amount. In 1846 the receipts of all savings-banks exceeded the total amount of money-orders issued by £229,311.

In 1858 the money-orders issued that year exceeded the receipts of all savings-banks by £4,760,180. The contrast is in some degree explained by the circumstance that, during the past twelve years money-order offices have increased 83 per annum; savings-banks about 2½. In England, in 1856, the county of Berks had the highest relative number of savings-banks for its population in 1851—one for each 16,899 persons. Lancaster had the lowest number—one bank for each 67,711 persons. The results are very instructive. In 1856 the savings-banks of Berks had £2,479 accumulated for each 1,000 persons; Lancaster only £1,562. Mr. Sikes refers to the magnificent sum remitted to Ireland, in aid of friends and families, by emigrants to the United States, and to the signal success which attended the extension of the money-order system to Constantinople and Scutari, for soldiers and seamen, during the Crimean campaign, and also more recently to Aldershot.

The facts cited show most convincingly that, to a great extent, the emigrant, the soldier, and the sailor, will avail themselves of facilities and institutions intended for their benefit. After paying a deserved tribute to the noble qualities often evinced by the working classes of the United Kingdom, and giving various details of the Money-order Office, Mr. Sikes

asks, if equal facilities cannot be given to working men by that department of the public service, to lay by a few sovereigns for old age, or for a rainy day, as to remit two or three pounds to distant places—even to Canada—for relatives or friends? and then suggests his plan. He proposes that the Legislature should authorise a central savings-bank in London, to issue savings-bank interest notes, bearing interest at the rate of 2½ per cent. per annum, and to be obtained through the money-order department of the Post Office throughout the United Kingdom. As the receipt of shillings and sixpences would entail an immense amount of writing, without corresponding benefits, and as these small sums come within the province of penny savings-banks, Mr. Sikes proposes that the interest notes shall be for exact pounds, ascending from one to thirty, the maximum allowed to be deposited in a savings-bank in a year; other denominations of notes up to the final maximum of £150 to be afterwards added. The mode of transacting business may be briefly described:—A working man presents himself at a money-order office with a sum—say four pounds, for the savings-bank; he would obtain a money order, and inclose it in a printed form to the chief savings-bank, who would, in course of post, return to him an interest note for the sum made out in his name, and the transaction would be complete. In withdrawals of money, depositors would have to transmit their interest notes in printed forms to the chief savings-bank, receiving, in return, money orders for the sums they write for, and the interest, which, at 2½ per cent., is exactly a halfpenny per £1 per month, or sixpence a-year. In all cases local postmasters would give any information and assistance that might be required.

The plan is not intended to compete in the slightest degree with existing savings-banks, but to give accommodation in districts entirely without these institutions. There are now 2,360 money-order offices, deducting from which the 597 towns which have savings-banks, the branch money-order offices in London and the large towns, it would leave 1,527 money-order offices to be constituted receivers for a chief savings-bank in London. Fifteen hundred new institutions open from Monday morning to Saturday night, to receive from the artisan, the mechanic, and the labourer, throughout the realm, the few well-earned pounds he may yearly, or even quarterly, be able to lay by.

Mr. Sikes communicated the plan to Mr. Baines, M.P., who, highly approving of it, transmitted it to Mr. Rowland Hill. By Mr. Hill it was considered to be feasible and excellent; and Mr. Sikes and Mr. Baines went to the Post Office, where they saw Mr. Frederic Hill, together with the managers of the money-order department, who unanimously assured them that the project might be worked with great ease and simplicity. One excellent feature in the plan is, that every depositor would have a Government guarantee for the perfect safety of his little fund. The absence of shillings and pence would not be any material inconvenience. A large portion of the deposits in the joint-stock banks in England and Scotland are on "Interest Receipts;" and a recent examination showed that in one bank 86 per cent. were for pounds only. In one of the largest existing savings-banks, out of 1,000 deposits 78 per cent. were for even pounds. Everywhere the plan has been considered to be highly valuable. Several bankers, postmasters, managers of savings-banks, and members of Parliament, have given it their warm approbation. The press, both in London and the provinces, has strongly advocated it. The Council of the Dublin Statistical Society, Archbishop Whately president, have passed a resolution recording "their entire approval of the principles of the plan, considering it to be especially applicable to Ireland."

At the Social Science Meeting at Bradford, the venerable peer, Lord Brougham, in his masterly address drew the attention of the audience to the scheme. We earnestly hope it may be laid before Parliament in the form of a bill, and be supported by the influence of the Government next session. Gradually would it be discerned how ruthless an enemy is improvidence to working men; economy and forethought how truly their friends. Under their guidance household purchases could be made on most favoured terms—for cash; any wished-for house taken at the lowest rent for punctual payment, and a home enriched with comforts until it was enjoyed and prized by all. From such firesides go forth those inheriting the right spirit—loving industry, loving thrift, and loving home. Emulous of a good example, they, in their day and generation, would nobly endeavour to lay a portion of their income by. Many a hard winter and many a slack time would be comfortably got over by drawing on the little fund, to be again replenished in better days. And, remembering that

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.

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



BIRTHPLACE OF SIR HUMPHRY DAVY, PENZANCE, CORNWALL.

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 enter-

tained 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