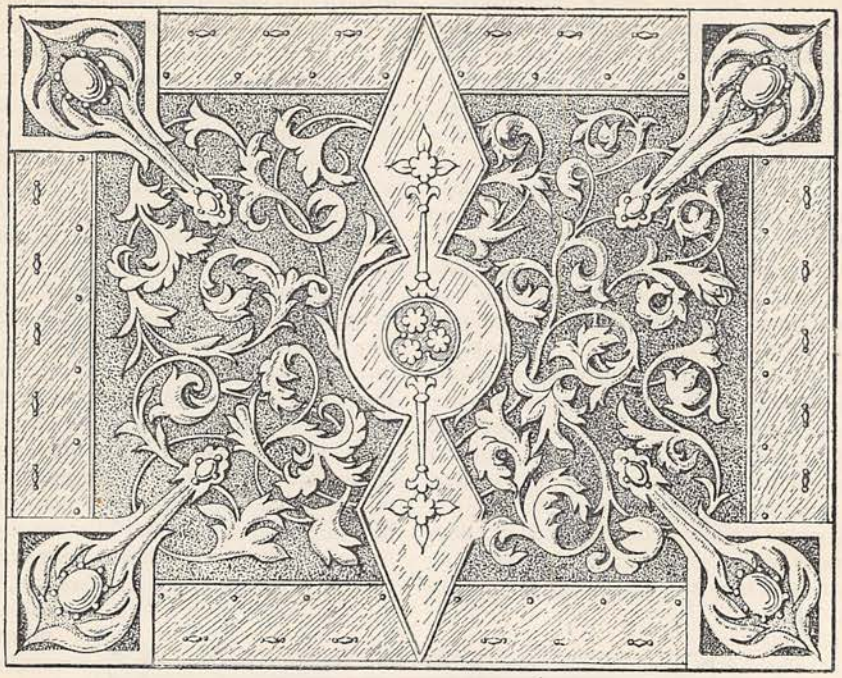

EMBOSSED AND JEWELLED BLOTTER-CASE.

Some charming panels have been designed as upright backs for brackets. One has the background shaded from brown to cream, and upon this is a group of terra-cotta and yellow-tinted chrysanthemums. The second has a blue-grey ground, with graceful yellow and cream poppies ; these form a pair. Sconce-panels are also arranged with wrought-iron candle-holders. Some of these are diamond-shaped ; they make a very agreeable change from the now general *repoussé* brass and copper sconces. Wall-plaques and photo-frames can be mounted in mahogany beadings, or in wood enamelled to correspond with the design. Bossa Fascilis is just the thing for ornamenting writing-table sets, which are now made *en suite:* blotter, envelope-case, ink-stand, post card case and calendar, letter-rack, and open box for unanswered notes. I think, too, a panel of Bossa Fascilis would greatly enhance the beauty of an expanding photo-screen for the table. These are some of the smaller articles it will suit, but it can be used for door-panels, heraldic shields, friezes, mirror-frames, and furniture decorations.

E. CROSSLEY.

## HOW MEN HIT THE BULL'S-EYE.

SUCCESS is everyone's mark. But only a few put an arrow in the white. Sometimes it is a random shot that does it. It cannot be denied that there are such things as happy accidents. The stocking-frame and the spinning-jenny were the almost hap-hazard inventions of William Lee and James Hargreaves. Cheap pottery came into existence at Burslem through a girl neglecting a vessel suspended over her fire. The contents were a solution of common salt intended to be used in curing pork. The liquid boiled over, and spread across the unglazed exterior of the vessel ; uniting with the brown clay surface it soon gave a brand-new enamel. A working potter in the neighbourhood heard of it, and came to inquire. The result was a great development of local industry. Schanward, a plain glass-cutter of the quaint old German city of Nuremberg, has linked his name inseparably with the rise of the art of etching on glass. His fame followed on a neat and timely guess. Some aquafortis fell upon his spectacles. He saw that in consequence the glass was corroded and made soft to the touch of tools. Thereupon he drew figures on a transparent plate, buried them beneath varnish, applied the acid to the ground of the design, and soon had his sketch standing out in effective relief.

An eminent living *littérateur* has related that his

earliest real success came to him by the channel of coincidence. A great writer of the day required special service rendered, and it was in his power through an accident of early association to help. The fable of the lion and the mouse received a fresh application. The need and the supply were brought adventitiously together. It proved a useful introduction. The door of opportunity which had seemed closed before was now opened, and the young worker made the most of his chances.

Another hand may assist in drawing the bow. Louis XIV. of France was present in 1667 at the siege of Douay. He was eager for the fame of the victorious soldier; but his heart failed him. The fire from the city was heavy, and the king's suite urged that he should retire and not further expose a valuable life. Louis was tempted to yield. An encouraging whisper from his friend and adviser, De Charost, saved him from discredit, and gave Douay into his hands. "The wine is drawn, it must be drunk," said the courtier of stouter courage. And Louis stayed and earned the applause of his troops.

Nevertheless most men hit the bull's-eye otherwise. Purpose and persistence train effort upon the difficult mark. Three typical careers of the century prove it. Jean François Millet, the French peasant-painter, was face to face with absolute want many times. Year after year it seemed as if reward and recognition were hopeless. But he worked on and waited, and at last reached the goal of popular appreciation. The world has since looked on and seen America and France in friendly rivalry for the possession of Millet's masterpiece, "The Angelus." There could be no doubt when the final price was registered that the painter had hit the bull's-eye. Thomas Carlyle was repulsed in his early attempts to achieve success in literature. He knew that a publisher's "No" was bitter. It was slow work winning the common ear for riddles of wisdom. It appeared as if the stout shot, "Sartor Resartus," had missed. But Carlyle did not allow chagrin to pass into despair. He steadily bettered his equipment, aimed at his mark again, and scored. Benjamin Disraeli had set his mind on high place, but could he touch that target? Was there the remotest chance for him—a novel-writer, a lion of *salons*, some said a fop, without great wealth or powerful connections or commanding birth? And it is a story that will quicken young ambition to far years how Disraeli answered those questions, and by resolute force of will, fertility in resource, and patient repetition of endeavour, planted his arrow in the white and stood at the red despatch-box, Prime Minister of England.

At the outset of life these winning qualities will almost surely be shown. From the annals of music an example may be taken. Dr. Thomas Augustine Arne, whose music to the masque of *Comus* gained for him a high reputation, as a lad was destined for the law. His father would hear of nothing else. He was educated at Eton, and on leaving school was placed in a solicitor's office for a term of three years. But young Arne had musical proclivities and ambitions and hopes, which were to shape his career in spite of adverse appearances. He privately conveyed a spinet to his bed-chamber, and practised when supposed to be at rest. There was risk of detection, with a possible thrashing to follow. Arne was not unfilial, but held that he had a moral right at least to gratify his passion for music in leisure hours. He had a plan to avoid home friction. He muffled the strings of his instrument with a handkerchief, and under these disadvantageous conditions still made progress. To the man who intended to succeed, means were available. It is ever so.

Mr. Archibald Forbes, in the first years of manhood, was a soldier in the ranks. But he was persuaded that he had the power to do a notable thing or two yet with the sword's ancient rival, the pen. He would make his mark as a writer. His attention was directed to an offer of a prize of fifteen guineas for an essay on "The Advantages the Mother Country derives from her Colonies," to be written by a working man. It seemed to Mr. Forbes that he met this condition. But his knowledge at the time of the British Colonies was limited. He was not then the travelled "special correspondent" of great newspapers. Where were his books of reference? He was stationed at Weedon, a place without either a free or a subscription library. But the obstacles were no matter. The prize had to be won; he would hit the bull's-eye. The young soldier rummaged round and discovered an old encyclopædia. It was enough. Industry, application, and native gifts did the rest, and the fifteen guineas went into Archibald Forbes's pocket.

But one of the surest ways of attaining success is by sighting a popular or professional want, and proceeding to supply it. A lady once tried to treat with an eminent firm of publishers for the disposal of manuscripts in various departments of literature. It was in vain. She encountered a polite negative. There was at the moment no market for these wares. "Then what *is* wanted?" she asked bravely. "A good Cookery Book," said the representative of the house. The lady went away, and worked, and sent in "copy" again; and her production this time was welcomed, published, and netted her a large sum.

Eli Witney Blake was engaged, in the year 1852, in the work of macadamising the streets of Westville, in the United States. It seemed to him that there was waste of labour, and that it should be possible to improve on ancient methods. Perceiving the lack, he looked keenly for a contrivance to meet it. His search was energetic and persevering. Money was in the machine even now looming dimly before his mind's eye. Experiment followed experiment, until at the end of five years Mr. Blake came before the mechanical world with the invention of the stone-breaker that bears his name, and which has everywhere come into use for breaking ores and preparing road-metal. In like manner Gail Borden noticed a deficiency in the matter of convenient and portable food for emigrants, and people undertaking long journeys over the ocean or through desolate lands. He thought, and investigated, and pushed forward to his chosen mark.

In the course of time he hit the bull's-eye. Gail Borden originated the ever-useful pemmican—lean meat dried, pounded, and pressed into cakes. The value of his invention was thoroughly tested by Dr. Kane on his Arctic expedition ; and in the London Exhibition of 1852 he was awarded the Great Council medal. Yet a third American inventor had his attention called to a current need by advertisement. Andrew Campbell was a son of the soil, but too energetic and inquisitive to follow the plough. His guardians bound him apprentice to a carriage-maker ; but work was slack, there was small opportunity for learning the trade, and the lad took it upon himself to terminate the contract, and enter upon another elsewhere. He was already wondering how he should hit the bull's-eye. And he read one day a liberal offer for a printing press, to turn out five hundred copies per hour. Campbell's acquaintance with such machines was comparatively slight, but he set to work at once to learn and scheme and model. He framed a specimen press which promised to meet the indicated requirements. But on this occasion he was too late. The time for examination was past. The disappointment may have vexed him, but it did not lead to the abandonment of the enterprise. He toiled on at perfecting his plans. And in this way he scored success as the designer of the earliest known registering power printing press for colour-work.

It was a genuine and important want that Sir Humphry Davy supplied with his miners' safety lamp ; and Sir James Young Simpson with the marvellous anæsthetic, chloroform ; and Messrs. William Fothergill Cooke and Charles Wheatstone with the practical introduction of the electric telegraph ; and Julius Reuter with his news agency system ; and Mr. Isaac Pitman with his art of phonography—to group together as a concluding illustration a set of very various fresh departures. To see where there is room for a new material in manufacture, a new way to sell old wares, or a novel relief to labour, and to occupy the vacant spot, is generally to achieve success.

Meissonier, the French painter, used for one of his striking canvases a model of a prancing horse. The model was shaped by his own hands, and the work occupied the mornings of a whole month. The painter was careless of the cost in time and trouble, so that he could compass exactitude to the living animal. Of his compatriot, Detaille, it is said in Paris that "he has a camera in his eye," so patient and thorough is the artist's observation as he moves to and fro. The most painstaking study of scene or object precedes the labour of reproduction.

Lord Lyndhurst was counsel in a *cause célèbre* relating to the invention of the bobbin-net machine. He was resolved to hit the bull's-eye ; and his method was full familiarity with all his details prior to coming into court. The reading of papers, the hearing of witnesses, the explanations of his client were not enough. Technical knowledge would play a great part in the case, and this knowledge he would have. The determined advocate went down to Nottingham, stood at a loom, and invited instruction. He bent his whole energies to the mastery of a new employment, and he did not leave the mill until he had grasped the principle of the machine very thoroughly. At the trial he exhibited a beautiful little model, put his points clearly, and backed them up by working his miniature machine. And he won the verdict. Success was due to resolute making-ready betimes to win it.

The world still has its ambitious young marksmen. Many of them are clever. But if they are to hit the bull's-eye, they must not trust to fortune. This may either serve or fail them. It is wisest to seek a royal will, a quick eye, a patient power of preparation.

W. J. LACEY.

## AUTUMN GARDENING.

WHEN we begin to speak of autumn gardening, we know at once that we are rapidly leaving summer behind us ; and for that reason we shall give here a few hints as to the cultivation of those flowers whose bloom delights us in the wane of the warmer months.

And perhaps one of the most showy and useful autumn flowers is one of which we have as yet said but little, and that is the aster. It has a very large family, as we shall presently see, though to attempt to enumerate all the different members of it would be next to impossible in our limited space. The aster, as we can at once perceive, is so called from its *star*-like appearance ; the natural order to which it belongs is that of the Compositæ—the same order of which the dahlia, and even our common daisy, are also members. There are, of course, a few greenhouse species of the aster, of which we may say something presently, but the vast majority of the family belong to the hardy herbaceous class, and we can rear them fearlessly in our ordinary garden soil. And we might here with advantage enumerate a few of the hardy sort that bloom in September and October. Of the old-fashioned class are, for example, the *Aster puniceus*, or red-stalked aster : its properties are oblong lanceolate leaves and branching