

out by the sun. All the rest escaped into free space and is lost among the stars or does there some other work that we know nothing about. Of the small fraction thus utilized in our system, the earth takes for its share only one-tenth part, or less than one 2,000 millionth part of the whole." What is that "other work" to which Herschel refers? To this question the discovery of Mr. Crookes suggests an answer. For as Providence has created nothing in vain, so analogy would lead us to expect that the solar rays fulfil many useful purposes which, though long unknown to science, will hereafter be discovered by the advancing knowledge of man. The present discovery, whatever else it may suggest, affords a new and beautiful illustration of the well-known law of "the conservation of forces," for it teaches us that the light which is incessantly pouring from the sun is perpetually converted into force, and that this force is utilized in the economy of the universe, no part of it being wasted, or latent, or lost.

## POETRY.

### The Scholar and the World.

In mediæval Rome, I know not where,  
There stood an image with its arm in air,  
And on its lifted finger, shining clear,  
A golden ring with the device, "Strike here!"  
Greatly the people wondered, though none guessed  
The meaning that these words but half expressed,  
Until a learned clerk, who at noonday  
With downcast eyes was passing on his way,  
Paused, and observed the spot, and marked it well,  
Whereon the shadow of the finger fell;  
And, coming back at midnight, dived, and found  
A secret stairway leading under ground.  
Down this he passed into a spacious hall,  
Lit by a flaming jewel on the wall;  
And opposite a brazen statue stood  
With bow and shaft in threatening attitude.  
Upon its forehead, like a coronet,  
Were these mysterious words of menace set:  
"That which I am, I am; my fatal aim  
None can escape, not even yon luminous flame!"  
Midway the hall was a fair table placed,  
With cloth of gold, and golden cups enchased  
With rubies, and the plates and knives were gold,  
And gold the bread and viands manifold.  
Around it, silent, motionless, and sad,  
Were seated gallant knights in armor clad,  
And ladies beautiful with plume and zone,  
But they were stone, their hearts within were stone;  
And the vast hall was filled in every part  
With silent crowds, stony in face and heart.

Long at the scene, bewildered and amazed  
The trembling clerk in speechless wonder gazed;  
Then from the table, by his greed made bold,  
He seized a goblet and a knife of gold,  
And suddenly from their seats the guests up sprang,  
The vaulted ceiling with loud clamors rang.  
The archer sped his arrow, at their call,  
Shattering the lambent jewel on the wall,  
And all was dark around and overhead:—  
Stark on the floor the luckless clerk lay dead!

The writer of this legend then records  
Its ghostly application in these words:  
The image is the Adversary old,  
Whose beckoning finger points to realms of gold;  
Our lusts and passions are the downward stair,  
That leads the soul from a diviner air;  
The archer, Death; the flaming jewel, Life;  
Terrestrial goods, the goblet and the knife;  
The knights and ladies, all whose flesh and bone  
By avarice have been hardened into stone;  
The clerk, the scholar, whom the love of self  
Tempted from his books and from his nobler self.

The scholar and the world! The endless strife,  
The discord in the harmonies of life!  
The love of learning, the sequestered nooks,  
And all the sweet serenity of books;  
The market-place, the eager love of gain,  
Whose aim is vanity, and whose end is pain!

—Extract from "Morituri Salutamus," by HENRY W. LONGFELLOW,  
in *Harper's Magazine for August.*

## Obituary.

### DEATH OF SIR W. LOGAN.

A cable dispatch to the *Globe* announces the death of Sir William Logan, which from information received in this city as to his illness, must have occurred at the family residence near Cardigan, in Wales. Sir William was born in Montreal in April, 1798, and was therefore in his seventy-eighth year. He was educated at the High School in Edinburgh, and graduated at the University of that city in 1818, when he entered the establishment of his uncle, Mr. Hart Logan, then carrying on business as a partner in the house, and after a short visit to Canada, returned to England, and took up his residence in Swansea, where he became manager of copper smelting and coal mining operations, in which his uncle was interested. During the eight years that he remained connected with these works he studied accurately the coal fields of that region, and the maps and sections which he made were adopted by the Ordnance geological survey, and published by the Government. In 1841 he visited the coal fields of Pennsylvania and Nova Scotia, and communicated several valuable papers to the Geological Society of London. About the same time he began an examination of the older palæozoic rocks of Canada, and the geological survey of the Province having been commenced, he was appointed as its head, a position which he occupied with great advantage to Canada until 1871, when he retired, recommending Professor Selwyn as his successor, a recommendation which was acted upon, and the wisdom of which has been fully established since.

In 1851, says Morgan's book, from which we derive our information, Sir William represented Canada at the Great Exhibition in London, taking charge of the splendid geological collection which he had himself made. It was so displayed as to exhibit to the best advantage the mineral resources of Canada. Medals in profusion were allotted to Canada, and the Royal Society of London elected Mr. Logan a Fellow, the highest attainable British scientific distinction. He was also a Commissioner from Canada at the Paris Exhibition in 1855; when he received from the Imperial Commission the grand gold medal of honour, and was created a Knight of the Legion of Honour. In 1856, he received the honour of knighthood from the Queen, and the same year was awarded by the Geological Society, of which he was a member, the Wollaston Paladium medal for his eminent services in geology. Few men have rendered more substantial service to their country than has Sir William Logan to his native country, Canada. To his eminent abilities we owe much of the information we possess of the hidden riches of the Dominion. To wonderful energy and untiring zeal in the pursuit of his work, he added a conscientious love of truth, and a character high-toned and honorable to a degree. His statements in relation to the geology of the country came to be accepted with the most unbounded confidence, and have all been verified by further exploration and research. In the times of wildest speculation in relation to mining operations, he never permitted himself to be carried away. Many whose chief appreciation of the value of mines consisted in their ability to bond them at a small price and sell them at a large, thought him unnecessarily cautious. But with him truth stood before all other considerations, and his name never could be used to build up mere speculative ventures. He was an enthusiast in science, not for its own sake only, but for the sake of his country and its prosperity. His purse, as well as his genius, was ever at the service of Canada, and one of his latest acts was that of contracting with parties in England for a boring operation in the Eastern townships to test the accuracy of his theory of the geological formation of that part of the country. Although he had ceased to be officially connected with the survey, his death will be regarded as a national calamity, while his name will continue to be revered as that of one of Canada's best and truest friends.

## MISCELLANY.

*The habit of disrespect.*—Few things are more damaging to the character than that habit of disrespect which many people allow themselves to contract under the name of "sharpness," the "critical faculty," "not to be taken in," "not to be humbugged," "letting one's mind be seen," and the like delusive euphemisms; not one of which is true; the real source being that overweening egoism which regards no feelings and recognises no rights in comparison with one's own. One of the commonest manifestations of disrespect is suspicion of motives, doubts of a Man's honesty of purpose, integrity of design. Your lawyer advises you to such action; you cast about in your mind for motives, collateral issues which will be for his own advantage; you hesitate so long, doubting, that the right moment passes; and when you act as he advised you act wrongly. By which you are confirmed in your suspicion that his purpose was less than honest for all your life after, and cudgel your brains in vain to fathom his secret meaning. So with your stockbroker. He recommends you to take up certain shares which are depressed for the moment, but sure to rise in a short time. You lose the auspicious hour by going