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Popularisation and Sensationalism.

THERE can be no doubt that at the present day the question of the popularisation of science has acquired new interest and importance; it has been for some time an increasingly recurrent theme in our columns. The times seem in many ways to offer a new opportunity; great things—very great things—have been occurring in science, and in view of them we realise more than ever the grievousness of our intellectual condition, a condition where not only the multitude lie in ignorance but also where those who pass as the best informed have been left by their higher education without eyes to see, or ears to hear, the greatest happenings in the progress of human knowledge.

There is, we must gladly admit, evidence of an awakening, of some growing sense of shame, and of a genuine and widespread desire to learn. Among those who direct the newspaper press, which, we are assured, reflects rather than leads public opinion, there are signs of an increasing disposition to bring science into the daily diet they provide. In a certain number of cases, science has become what is technically known as a “feature”—like the music and art columns; and it has even shown the possibility of providing at times a “scoop.” Broadcasting, again, is opening up new channels of communication which, if properly used, may be of unequalled importance in creating among the multitude an intelligent interest in science.

It seems to us very important that at this juncture, men of science should be alert to seize their opportunities and that they should respond in every legitimate way to the growing demand. They should bend themselves to the task of translating science to the public and of giving all the knowledge that is possible of its meaning, its methods, and its march. We need scarcely add that the task is one of very great difficulty. The public must have what the public wants: if it desires to be informed, it demands before that to be interested. Its own point of view, its primitive state of knowledge in all that relates to science, must be carefully regarded. Liveliness of exposition is as necessary as lucidity. The thing can be done—it is well worth doing; and though it seems at present there are not many, we believe that there might, by taking thought, be many more who know exactly how to do it.

There is no doubt that many men of science shrink under the demand for popularisation, not only because it would divert them from what seems more serious work, but also because it threatens a loss of self-respect. We can all understand and sympathise with their apprehension, and it is only fair to say that to-day the position is becoming more difficult. The public

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expectations of new marvels from science have been greatly stimulated; science gives a new promise of material for leaded type and heavy headlines, it may even reach the evening "contents" bill; camera-men are in waiting at every corner.

It is easy to understand the reluctance, which all this inspires in modest men, to venture on the territory of press publicity, and to incur the risk of inclusion with charlatans whose "amazing" discoveries still find so ready an acceptance there. We believe, however, that the risk is worth while and that with reasonable care the dangers can be avoided. Vigilance is, however, becoming increasingly necessary, and it is of the first importance that public opinion within the scientific world should express itself plainly when this vigilance is neglected.

It is with this sense of obligation that we feel compelled to express very great regret that, in one of the younger universities, the dignity of science should recently have been allowed to undergo what seems to us to be a very serious violation. We shall not attempt to enter into details, nor do we desire to particularise individuals. The essential fact is that a want of vigilance has led to an exhibition of vulgar sensationalism which, as we are well assured by the remonstrances that have reached us, is regarded by the reputable scientific world as being in the highest degree deplorable. We make no attempt to apportion blame; we are concerned only to enter a strong protest. It is possible that what has happened may act as a temptation to a few of the less thoughtful to the empty glories of the limelight. In so far as that is the case, it will, we trust, stir responsible people to the exercise of restraint. We do not think the chief apprehension lies in that direction. We fear rather that what has happened may prove to have given a serious set-back to the efforts, which have recently been showing more success, to induce our men of science to help in a wholesome alliance with the Fourth Estate in what, properly regarded, has the sanctity, and should have the sobriety, of a missionary effort of enlightenment. We can only hope that what has recently happened will leave behind nothing but a salutary warning.

There is at the present time great restlessness in the world; old landmarks and fixed points, and even rules of life, seem to have disappeared, and we are in the turmoil of readjustments on the grand scale. Amid the grave anxieties of this condition we have a temporary excitement breaking out here and there in all sorts of morbid forms. By coincidence we have in the world of science a corresponding stir of readjustments; let us see to it that we at least are not invaded by the discordant spirit of jazz.

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### The Human Factor in Coal Mining.

ON October 2 the Institution of Mining Engineers held its annual meeting, at which Prof. J. S. Haldane was inducted into the presidential chair and gave his presidential address. The occasion was sufficiently unusual to merit special comment. It is not an ordinary occurrence for the president of an engineering institution to be a professor of physiology; but Prof. Haldane is no ordinary physiologist. He has practically devoted his life to a study of the physiological problems which the miner's occupation presents, and to the discovery of how the miner's health and safety of life and limb are affected by the incidence and accidents of his occupation, and how the ill-effects of these can be guarded against. It is not too much to say that it is to Prof. Haldane's studies that thousands of coal miners in Great Britain owe their lives and health to-day, and that he has played a leading part in the battle against the dangers of the industry which mining engineers are waging with such conspicuous success that coal mining in Great Britain is safer than in any other country in the world.

As might well be expected, Prof. Haldane's presidential address had in it nothing at all technical; it was essentially humanistic and laid stress upon that most important of all factors in any engineering industry, namely, the human element. He pointed out that one of the most striking characteristics of mining men is the deep and sincere feeling of comradeship that unites all classes amongst those actually engaged in mining work; or, as he put it: "I have often been present at a colliery during some time of trouble or danger; and it was this comradeship, from highest to lowest, that impressed me most. But whether or not unusual trouble is present, one seems to meet comradeship as one enters the colliery premises or steps into the cage." He points out that it is this readiness with which miners "will give loyal and efficient service, will face any danger, will forgive imagined or real mistakes, and will take the rough with the smooth, the bad times with the good," that makes the miner insist upon his right to be treated as a man and not as a machine; and Prof. Haldane expresses his strong view that this feeling is really at the bottom of the so-called industrial unrest amongst miners. As he puts it: "Neither high wages, high dividends, nor welfare schemes will satisfy them in this respect, but only discerning and sympathetic treatment, the treatment of comradeship in a common enterprise—such comradeship as existed in and between all ranks during the War, or such comradeship as is taught in the Gospels."

Prof. Haldane makes clear that his experience has taught him that the mining engineer and mine manager,