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MAN'S NATURAL SAVAGERY.

THE APPLICATION OF SCIENCE TO WAR.

SIR WM. OSLER ON THE ALLEVIATION OF SUFFERING.

An address on the influence of the new dispensation of science on the old practice of war was given by Sir William Osler, Bart., at the Leeds School of Medicine yesterday. The occasion was the opening address in connection with the Faculty of Medicine at the University of Leeds, and there was a large attendance of medical and dental practitioners from various parts of the West Riding, many being clad in khaki. Col. de Burgh Birch, Dean of the Faculty, presided, and others on the platform were the Pro-Chancellor (Mr. A. G. Lupton), and the Vice-Chancellor (Mr. M. E. Sadler).

SIR WILLIAM OSLER'S ADDRESS.

Sir William Osler, in the course of his address, said the pride, pomp, and circumstance of war had so captivated the human mind that its horrors were deliberately minimised. The soldier embodied the heroic virtues, and the camp was the nursery of fortitude and chivalry. The inspiration of the nation was in its battles. Cressy and Agincourt, Trafalgar and Waterloo were more notable events in history than Magna Charta, the execution of King Charles, or the Declaration of American Independence. The explanation of this distressing fact was that we were still in the childhood of civilisation. The lust of war was still in the blood; we could not help it. Let them remember that war was a human development, unknown to other animals. In our own day the gradual disappearance of native populations was due as much to whisky and disease as to powder and shot, as witness in illustration of the one the North American Indians and of the other the Tasmanians. And yet in what a fool's paradise many of them had been living, flaunting in the face of history their wish for peace, seeking it, ensuing it with the war drums throbbing in their ears! But let them respect the pious wish, since it was not without basis.

Some of them had indulged in the fond hope that in the power man had gained over nature had arisen possibilities for intellectual and social development such as to control collectively his morals and emotions, so that the nations would not learn war any more. They were foolish enough to think that where Christianity had failed science might succeed, forgetting that the hopelessness of the failure of the Gospel lay not in the message, but in its interpretation. We had become so polite and civil, so cultured in both senses of that horrid word, with an "Is thy servant a dog" attitude of mind, in which we overlooked the fact that beneath a skin-deep civilisation were the same old elemental passions ready to burst forth.

Science was the way of looking at the world taught us by the Greeks—a study of nature with a view to utilising her forces in the service of man. Man's latest acquisition, it had worked a revolution in every aspect of his life without so far changing in any way his nature. Organised knowledge, science, if living, must infiltrate every activity of human life. There was a difficulty in these islands which in fruitful ideas, inventions, and discoveries had had the lion's share, but failed to grasp immediately their practical importance. The leaders of intellectual and political thought were not awake when the dawn appeared. The oligarchy who ruled politically were ignorant, the hierarchy who ruled intellectually were hostile. What a change it might have wrought in rural England if in 1840, when the whole, when the figures came out for the first year of the war we should find a great victory in the low death-rate from disease. In the East dysentery and forms of typhoid were troublesome, but the grave camp diseases such as cholera and typhus had not prevailed, and were not likely to do so. Lastly, in the treatment of wounds, science had made great advances. Of the germs blown into wounds from the soil and clothing and skin the pus-formers were the most numerous and most important. Two others had proved serious foes, the germ that caused gas gangrene and the tetanus bacillus. He was told that methods of treatment of wounds infected by the former were giving increasingly good results. The soil upon which the fighting had occurred in France and Flanders was rich in the spores of the tetanus bacillus, and the disease caused by it was at first very common and terribly fatal among the wounded. No single aspect of preventive medicine had been more gratifying in the war than the practical stamping out of this particular disease by preventive inoculation. In the first six months of the present year there had been only 36 cases of the disease among those who had received a protective inoculation within 24 hours of being wounded.

What, asked Sir William, was to be our final judgment—for or against science? War was more devastating, and the organisation of the forces of nature had enabled man to wage it on a titanic scale. To humanity in the gross science seemed a monster, but on the other side was a great credit balance There were the enormous number spared the misery of sickness, the unspeakable tortures saved by anæsthesia, the more prompt care of the wounded, the better surgical technique, the lessened time of convalescence, and the whole organisation of nursing. The wounded soldier would throw his sword into the scale for science, and he was right. To one who was by temperament and education a Brunonian and free from "common antipathies" and "national repugnances," one sad sequel of the war would be, for this generation at least, the death of international science. An impassable intellectual gulf yawned between the Allies and Germany, whose ways were not our ways, and whose thoughts were not our thoughts. That Germany had made herself a reproach among the nations of the earth was a calamity deplored by all who had fought against Chauvinism in science, and a bitter regret to those who had had close affiliations with her, and lifelong friends among her professors, whose devotion to science had made every worker in every subject, the world over, their debtor.

How to Have Prevented War.

Mr. Sadler, in proposing a vote of thanks to Sir William Osler, said that he was one of the long series of literary craftsmen who had been the glory of the medical profession in Britain. He confessed that Universities in Germany—Gottingen, Heidelberg, and Berlin—had had a great deal to do in bringing on this war, but they were proud that in English Universities their hands were clean on that score at any rate. He was not sure, however, they were not partly to blame in some British Universities for having neglected scientific study and methods in the training of the young men who passed on to high positions of influence in the Civil Service. If Oxford had cared more in the study of humanity for science and less for philosophical dialectics we might have had in our Civil Service men who were so alert to the real drift of things, and so alive to the possibility of the destructive power of science, that they would in trumpet tones have aroused their countrymen, and prevented this war by being more prepared. English Universities had helped to provide the remedy for many of the troubles which the war had produced, and there was nothing which they in the Leeds University in modern times had admired more than the part their colleagues in the Medical School had borne in the care of the wounded and the sick.

The motion was seconded by one of the students, and carried with acclamation. Sir William briefly responded, and spoke a few words to the students.

SOME CAUSES OF "NERVINESS" IN THE NATION.

Earlier in the day Sir William Osler addressed the members of the Leeds Luncheon Club, on "Nerve and 'Nerves.'" He pointed out that the unstrung state described by the term "nerves," had been known to attack whole communities. What a contagion, he said, was fear!—a state in which the nerves were unstrung. How its voice rang through history! The spirit of fear

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Science was the way of looking at the world taught us by the Greeks—a study of nature with a view to utilising her forces in the service of man. Man's latest acquisition, it had worked a revolution in every aspect of his life without so far changing in any way his nature. Organised knowledge, science, if living, must infiltrate every activity of human life. There was a difficulty in these islands which in fruitful ideas, inventions, and discoveries had had the lion's share, but failed to grasp immediately their practical importance. The leaders of intellectual and political thought were not awake when the dawn appeared. The oligarchy who ruled politically were ignorant, the hierarchy who ruled intellectually were hostile. What a change it might have wrought in rural England if in 1840, when the distinguished Dr. Daubeny was made Professor of Rural Economy, Oxford could have had great State endowment for an Agricultural College! The seed was abundant, and the soil was good, and only needed the cultivation that had been given so freely by members of the past generation, with what results they saw today at Oxford and Cambridge and in the new Universities. In Scotland, too, science had to fight hard to break the shackles of ecclesiasticism. The problem of linking University work with the scientific industries was being solved in Leeds and elsewhere, as in Sheffield, with marked success; and was part of a great and growing movement to which the war had given a fresh stimulus. In forty years Germany made science infiltrate every activity of her life, and much good, they might say, had it done her. If in this day of trial she could be independent of the importation of nitrates by the synthetic manufacture of nitric acid it would pay her a thousandfold the millions she had spent in promoting the interdependence of science and commercial technology.

Science as the Friend of War.

In two ways science was the best friend war ever had; it had made slaughter possible on a scale never dreamt of before, and it had enormously increased man's capacity to maim and to disable his fellow-man. From 1790 to 1913 there were 18,552,200 men engaged in the great wars, of whom 5,498,097 lost their lives. In the Balkan wars of 1912-13 there were 1,230,000 men engaged, of whom 350,000 were killed; in the Russo-Japanese war there were 2,500,000 men, of whom 555,900 lost their lives. It was estimated that in the present war more than 21 millions were engaged. As weapons had improved, the losses would be yet greater, and they might expect that at least five or six millions of men in the prime of life would be killed. Within a few years artillery and high explosives, submarines and aircraft had so revolutionised our methods of warfare that thousands were now destroyed instead of hundreds. In three directions science had scored in a mission of destruction. What a marvellous adaptation of physics, pneumatics, and mechanics was displayed in a submarine, with which the highest standard of wholesale destruction was reached. Chemistry, electricity, physics, optics, mathematics, every aspect of the subtlest human study had contributed to the perfection of the new guns and modern explosives.

Dante and Milton in their descriptions of hell were outclassed by the description of what happened on a battleship in action outclassed by an enemy's guns. Here was perhaps the greatest single victory for science in war from one standpoint. In the making of a 15-inch gun that would throw with accuracy a ton of metal a dozen or more miles was found a combination of brains and machinery such as did not exist in any other human product, and such a combination of brains and courage did not exist in the working of any other machine. On land the field guns, howitzers, and machine guns had increased enormously our killing capacity. In self-defence armies had taken to earth, and from the North Sea to the Alps Europe had become a rabbit warren. Every device of science had been pressed into use. Never since the primal tragedy when man first shed man's blood had there been such a carnival of carnage as that which science had made possible during the past year. Theoretically, all was fair in war, but not so in the present war. Never before had anything used by man to kill man equalled in diabolical capacity for cruelty the use by the Germans of irrespirable gas. Had it been a suddenly asphyxiating vapour the action would not perhaps have been thought any more reproachful in war than wholesale drowning by the torpedo. But the gas employed was a very different matter, and the worst types of cases were appalling to witness. It was not a little remarkable that the aspect of the war which caught the popular fancy, and from which so much was expected had proved comparatively harmless, from a killing standpoint. "The rain of ghostly dew" of Tennyson's vision, and which the Wright Brothers and Zeppelin had made possible, was more destructive of property than of life. An enormous value for observation and the shock of righteous indignation roused all over the world by the Zeppelin murder of women and children had been, so far, the chief assets of the air.

Suffering Reduced to a Minimum.

What, asked Sir William, had science done in a mission of salvation amid the horrors of war? Science borne in the care of the wounded and the sick.

The motion was seconded by one of the students, and carried with acclamation. Sir William briefly responded, and spoke a few words to the students.

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SOME CAUSES OF "NERVINESS" IN THE NATION.

Earlier in the day Sir William Osler addressed the members of the Leeds Luncheon Club, on "Nerve and 'Nerves.'" He pointed out that the unstrung state described by the term "nerves," had been known to attack whole communities. What a contagion, he said, was fear!—a state in which the nerves were unstrung. How its voice rang through history! The spirit of fear might come upon a people like a pestilence, and in the Middle Ages it was responsible for that black record of witches and witchcraft. Waves of emotion played on man's nerves as the sound of an æolean harp. The herd instinct, so dominant in animals, was present also in man, and the pyschology of the crowd had become a favourite study. In a great crisis like the present, we were all a bit surcharged emotionally, and apt to get "nervy," and lose control of the machine. Judgment became difficult, and we were swayed by emotions that swept over the crowd, regardless of any basis in truth. We become weak-minded, and believed anything any Ananias might say. Who could have dreamt, for instance, that so early in the war there could have been so many liars in the country as the men and women who saw Russian troops! (Laughter.) Again, what a triumph of unstrung nerves was that matter of the war babies! In one town of 18,000 inhabitants 2,000 were expected. It was gravely suggested that the workhouses should be converted into maternity hospitals. A huge crop was expected at Oxford—but the rate had scarcely reached normal. Collectively, we needed steadying, more self-control, more cultivation of the will, which alone had the key to our reservoirs of unused energies. We should avoid artificial stumulants for the nervous system. It indicated a certain lack of nerve, an oysterlike flabbiness in the nation, not to have followed the King's example in the matter of alcohol. Nothing so weakened the will of the worker of mind or muscles as leaning upon that Egyptian reed. (Applause.) Too much tobacco also increased the irritability of the nervous system, and many young soldiers smoked far more than was good for their hearts or brains. Another serious promoter of "nerves" was the combination of "gossip, gabber, and gas," which we had dealt out by the "penny dreadfuls," and poured by people into our too willing ears. He wished we could catch and intern one person, a lying knave, an Autolycus, who flitted from house to house, and in most cases was very welcome, called "a friend of mine." (Laughter and applause.) That appalling third person was responsible for apprehension and mistrust where confidence should reign, and very often for a limp and flabby public opinion, instead of nerve—that well-strung state so needful for our final victory. (Applause.)

LIQUOR TRADE CONTROL.

THE FORTHCOMING INQUIRY IN LEEDS.

The announcement that a deputation of the Central Control Board (Liquor Traffic) will visit Leeds on Tuesday next, to hold an inquiry in relation to the control of the liquor traffic in the West Riding, is arousing a considerable amount of interest. By this time people are familiar with the far-reaching powers of the Board in regulating the sale and consumption of drink, but it is not yet clear what procedure will be adopted in the inquiry. Arrangements, however, have been made for receiving a deputation from members of "the trade" on Monday evening for the purpose of hearing their views, and the same privilege will be extended to the temperance interest, if they desire to be heard on the other side.

As we explained in an article upon the subject in "The Yorkshire Post" of September 25, the restrictive powers of the Board are far-reaching, but they possess also constructive powers of importance—they may, for instance, order the provision of canteens for the supply of refreshments where necessary. They are guided, presumably, in the exercise of their powers, not by considerations as to the direction which social reform should take, but by the prime necessity of taking adequate steps, so far as they are able, to ensure the ultimate success of the Allies in the war. Their inquiries, therefore, are not intended to afford occasions for argument as to methods of policy, but to elicit facts

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Suffering Reduced to a Minimum.

What, asked Sir William, had science done in a mission of salvation amid the horrors of war? Science had done three things, the first of which was the organisation of the transport and care of the sick and wounded. Through the bitter experiences of the Napoleonic wars, of the Crimea, of the Civil War, and more particularly of the recent campaigns, there had been evolved a wonderful machinery replete with science for the transport and care of the sick and wounded. There must be suffering, but we must be thankful for its reduction to a minimum, through the application in every direction of mechanical and other pain-saving devices. Every one knew the work at the big base hospitals at home, and we must not forget the deep debt of gratitude due to Lord Haldane and Sir Alfred Keugh for perfecting their organisation years before the war broke out. He wished the public could know more of the heroism and devotion of the men and women serving the field ambulances and casualty clearing stations. Nothing could illustrate better the spirit of self-sacrifice and devotion which the great war had awakened all over the world.

The second great victory of science in war was the prevention of disease. Pestilence had always dogged the footsteps of war, and the saying was true, "Disease, not battle, digs the soldier's grave." The tubercle bacillus alone would kill more people in Leeds in 1915 than the city would lose of its men in battle. Forty years ago we did not know the cause of any of the great infections. Patient study in many lands had unlocked their secrets, and man had now control of the most malign of nature's forces in a way never dreamt of by our fathers. A study of her laws, an observation of her facts, often of very simple facts, had put us in possession of life-saving powers nothing short of miraculous. The old experimental method, combined with the new chemistry applied to disease, had opened a glorious chapter in man's history.

The question was, how to translate this knowledge into practical effect. It had been done, and done in this war, as never before in history. In a larger Army than we had ever before had in the field the incidence of disease had often been lower than in times of peace. In the West there had been no great epidemic, and on

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AN EX-BANK MANAGER'S CONFESSION.

At Macroom (county Cork) yesterday, John Stafford Dunne, late manager of the Macroom Branch of the National Bank (Limited), was charged with the embezzlement of £1,500, the money of the bank. District Inspector Egan stated that the accused on September 16 came to his house and said, "Egan, a terrible thing has happened. I have defrauded the bank of £1,500, and I come to give myself up to you. I was very much pressed by my creditors, and I had expectations of getting sufficient to pay it all afterwards, and I was disappointed. In a moment of temptation, when under a threat of legal actions, which would ruin me, I took it. I considered I was in duty bound to confess and submit to the law, and also exonerate my colleagues, who had no hand in taking the money." The was returned for trial at the next Assizes.