

local authorities to borrow something like £1,500,000 for new work. The Post Office will take on at Christmas 8,000 extra men; the War Office are prepared to accept 24,000 men for the special reserve; and the Admiralty, by a change in its programme, will spend an additional £2,000,000 on work in the dockyards. The Central Grant of last winter is also to be doubled, thus making available the sum of £300,000. As Mr. Asquith himself admitted, all these schemes are mere anodynes and temporary palliatives, but considered solely as a temporary effort to meet a pressing need, there is much ingenuity in the proposals of the Government. The employment of extra hands at the Post Office—there are always several thousand 'extras' employed at the Christmas season—will not do very much. The main provisions of the scheme are those relating to the acceleration of the naval construction programme, the special enlistment device of Mr. Haldane, and the augmentation of the loan to local authorities. From the reports already to hand there is good reason to believe that the Clyde yards will profit fairly extensively by the Government's decision to hurry on the work of building cruisers and destroyers. Only last Friday Mr. McKenna paid a high tribute to the Clyde shipbuilders, and hinted that when the orders were given out they would not be forgotten. It is interesting to note from Mr. Asquith's speech what the municipalities are doing. Since August they have applied to the Local Government Board to sanction loans amounting to £1,500,000 to be expended on additional public works, and many of them have hastened the execution of works sanctioned in previous years. In addition, considerable sums—Glasgow leads the way—have been raised by voluntary subscription. The outlook for the unemployed is therefore distinctly brighter. There are now many agencies at work apart from what the Government intend doing, and there are signs of a revival of trade. Orders, apart from those of the Admiralty, have been received by Clyde shipbuilders, and it may be that the winter, which so many poor people have dreaded, will not be so bad after all. That the Government have done their best; that they are in earnest in trying to alleviate the sufferings of the poor is evidenced from the attitude of the Labor party; but we trust that Mr. Asquith will be able before this Parliament ends to strike a real and effective blow at the cause of unemployment in this country.—Glasgow Mail.

LIFE SAVING IN MINES.

Recently, at Leeds, Sir Henry Cunyninghame, in proposing the toast of the 'Mining School of the University of Leeds,' alluded to the experiments to test the explosive power of coal dust carried out at Alfta Colliery, if they proved successful, as the most valuable mining experiments ever carried out in the history of coal mining. The object was to prove whether an isolated zone in a pit, isolated by stone dust or water, or in some other way, was capable of resisting the flame of an explosion. If that could be done, isolated zones could readily be established where it was practically impossible to keep a whole mine free from dust. The cost of isolated zones would be less, and a greater measure of safety would be secured. The newspaper writers, he thought, had taken a somewhat too sanguine view of these experiments, and, in his opinion, a great deal more careful experimentation was necessary

before Mr. W. E. Garforth, and those associated with him in this work, could really say that complete success had attended their experiments, and that the problem had been really solved. Still, they could say this much, that its solution never looked so hopeful as at the present moment. Sir Henry Cunyninghame also alluded to the question of rescue apparatus. In some quarters there seemed to be an opinion that the rescue apparatus was such a triumphant success that there was nothing now to be done but install it in every mine in the country. He himself was a strong advocate of this apparatus, and he believed it would ultimately prove successful, just as he believed before long we should have flying machines successfully flying within limits; but he did not think that complete success had yet been achieved, or that the time had yet come for the Home Office to order the establishment of a rescue apparatus at every colliery. What he would like to see established at every rescue station was a properly organized system by which men trained in the use of this apparatus could be ready at a moment's notice at any time to go wherever there was an accident. A scheme should be drawn up fixing the payment to be made to these men, the insurances of the men, and the fund from which compensation should be paid to them in case of injury, and every colliery should know just where they could get the men the moment they were wanted. He earnestly hoped some such arrangement might be made without delay.

A recent development in Germany should offer great possibilities in this country, says Chambers's Journal. This is the supply of gas in cylinders adopted for the lighting of country houses and rural districts. The gas has been invented by Hermann Blau, a chemist, and is distilled from oil and other materials. Manufacture is carried out upon new and novel lines. The oil is fed into the retort and distilled at a lower temperature than that employed in coal gas manufacture. The by-products are secured, and the gas cleaned and scrubbed in the usual manner. It is then compressed at great pressure in cylinders similar to those employed for the transportation of oxygen, the effect of this pressure being a liquefaction of the gases. The permanent gases which distillation has yielded, such as hydrogen, methane, and carbon monoxide, the chief constituents of coal gas, are then dissolved to the required extent in the liquid masses. When the pressure is relieved the liquid volatiles, carrying off a certain proportion of the gases which were dissolved. The light obtained is of great brilliancy, while the gas is perfectly pure and harmless. The cylinders are of varying lengths and capacity, it being possible to acquire a small vessel holding one pound of gas suitable for travelling, boating, or camping out expeditions, up to large reservoirs containing heavy supplies suitable for extensive country seats. The medium size, adopted for use in small villas, will supply enough gas to meet requirements for some eight weeks. All that it is necessary to do is to install the charged cylinder in the receptacle supplied for the purpose outside the building, connect it up to a small tank in which the pressure is regulated, and then admit it to the ordinary piping system of the house. When a cylinder is empty it can be easily and quickly disconnected and a full cylinder replaced, the empty one being returned to the works for a fresh charge. There is no possibil-