A SIMPLE WAGON TIPPER: — Many devices, some operated by hand and some by power, have been invented to "tip" a wagon so as to empty it of its contents. One of the most interesting of these devices, worked by hydraulic power, has recently been demonstrated by a leading British firm. The engine of the wagon drives two hydraulic rams which raise the body and clear it of its load within half a minute . The whole operation is carried out by moving a single lever, this action being performed by the driver without moving from his seat.

A GIANT ELECTRIC POWER STATION: — The new electric power station at Glasgow, Scotland, takes rank as one of the largest in the country. It is designed for an ultimate capacity of over a quarter of a million horse power, and each generating unit — of which there are five in the first half of the station recently completed — will be of 24,000 horse power. Each boiler is capable of producing 62,000 lb. of steam in an hour. All the latest labour-saving devices for loading coal into the bunkers, stoking the furnaces, and removing the ashes are installed, and a very high degree of economy in the production of electricity on the large scale is assured.

INVESTORS WAIT OPPORTUNE MOMENT: — There are hundreds of thousands of pounds of British capital being held, awaiting favorable opportunities for investment in Canada, and these funds will be sent across the Atlantic as soon as the exchange problem has righted itself sufficiently to appeal to British investors, according to J. A. Robb, M.P., for Huntingdon, Quebec, who has recently returned from a trip to Britain. The high taxes being placed on idle capital in Britain are responsible for the desire to invest in Canada, M. Robb stated, saying that it would be necessary for Canada to exercice caution and refrain from penalizing investors too heavily by way of taxes which could be avoided. Otherwise, he thought, investors would be driven to seek other fields for the employment of their capital.

A NEW BRITISH UNDER-WATER PUMP: — In salvage operations, in well-making, and in many kinds of dock and harbour engineering great advantage is gained by using a pump which can work under water. Several types of submersible electric pump have been designed by British engineers, and the latest type has some special features of interest. The usual practice is to allow the water free access to the stationary part of the motor, thick rubber being used to insulate the electric circuits. In the new invention this part of the motor is cased in a special steel alloy, the casing being filled with oil. This arrangement makes the motor very compact and of high efficiency. By using suitable materials for the casing and pump parts, and a special incorrodible steel alloy in the rotating part of the motor, the pump can be adapted for handling weak acids and other corrosive liquids.

FUEL ECONOMY: — The British Association Committee appointed in 1916 to consider the vital question of fuel economy has issued its third report. Successful experiments in the production of fuel alcohol at a British iron-works are mentioned. The alcohol was produced from coke oven gas, and the experiments show that over one and a half gallons of absolute alcohol could be recovered for every ton of coke. On this scale the coke ovens of Great Britain ought to be able to produce twenty four million gallons of absolute alcohol every year. Alcohol has proved satisfactory for driving motor cars, especially when it is mixed with benzol.

MEASURING MINE VENTILATION: — At the Cardiff meeting of the British Association. Professor Macgregor-Morris described a most ingenious instrument which gives direct readings of the speed of air currents. It is based on a simple electrical principle. When an electric current passes through a wire, the wire becomes heated and its electrical resistance changes accordingly. By using two identical wires, both carrying the same current, and by protecting one from the cooling effect of wind, the difference of electrical resistance between the protected wire and the unprotected wire affords a measure of the cooling effect and thus of the speed of the wind. On these lines the inventor has devised a portable apparatus which reads directly in miles per hour with remarkable accuracy. The chief use of this apparatus is for measuring the ventilation of coal mines, but it has many other applications.

"DRY" GALVANISING MADE EASY: — The process of galvanising iron to protect it from moisture is of special importance in countries where the atmosphere is humid. Complicated plant is generally required for the process, which consists of covering the iron with a layer of zinc. Recently, however, a British firm has introduced a simple apparatus which can readily be installed in any workshop. It consists of two parts, in the first of which the articles to be treated are placed in a bath of zinc dust and heated — the heating being done by electricity, gas, or oil. The zinc dust vaporises and forms a close covering adhering to the iron or steel. The second part consists of a rotating drum, in which the covered articles are revolved to shake off the excess dust. So simple is the plant that it can be operated by unskilled labour; and the results are better than by the old-fashioned process of galvanising in a bath. Screws, bolts, motor car parts, articles of art metal, and so on can be readily treated.