

NEW IDEAS IN SCIENCE AND INVENTION.

GETTING THE BEST THAT SCIENCE CAN GIVE.

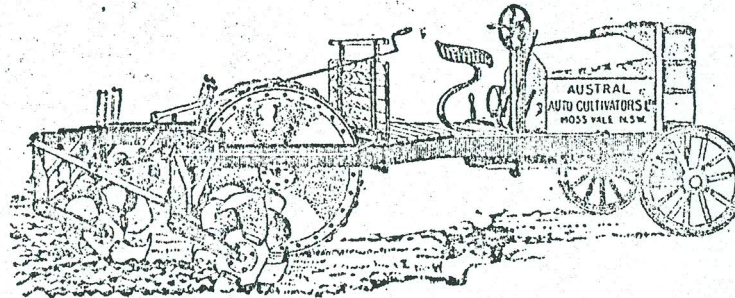
A number of orders have recently been received by British firms, under terms which mark an interesting innovation. Instead of specifying their requirements minutely, oversea purchasers have given only leading particulars concerning the machines or material desired, and have asked that the product supplied should be in accordance with the manufacturer's latest practice. This is obviously a move in the direction of progress. All the essential requirements of the purchaser are fulfilled, and, at the same time, he gains the advantage of the latest improvements in design and manufacture. If the order is accompanied by a rigid and detailed specification, the purchaser may exclude himself from the benefits of important advances.

Stale developing paper will give foggy grey images in ordinary developing solutions. By exposing three times longer in printing, and using about four times as much bromide of potassium in the developer, the prints may be made clear and "contrasty." The exact amount of bromide to be used is easily ascertained by experiment.

An Australian Invention--The Auto-Cultivator.

This very handy machine was invented by Mr. Arthur Clifford Howard, of Moss Vale, N.S.W., and can best be described as a rotary hoe cultivator plough, driven by motor power, and having the engine built into the chassis. The machine is fitted with cutting blades, which work much after the manner

be used for practically all classes of agricultural work, and machines of different sizes and capacities may be obtained to suit the varying conditions under which they are required to work. In addition to this, and as important as anything, is the fact that the chassis of all machines may be used as an



of the ordinary hoe. The blades are attached radially to spindles which revolve by power sent direct from the engine, and can be raised or lowered to suit the surface of the land, and the depth of the cut required. The speed is well and truly regulated. Cultivating and sowing may be combined by attaching a seed drill to the plough. The auto-cultivator can

be used for practically all classes of agricultural work, and machines of different sizes and capacities may be obtained to suit the varying conditions under which they are required to work. In addition to this, and as important as anything, is the fact that the chassis of all machines may be used as an ordinary tractor or stationary engine. The cultivator has been tried out in actual work, and has given every satisfaction. It ploughed four to five inches deep, 1 1/2 ft. wide, and did what no other plough could do. The ground, after cultivating, was left a perfect seed bed, ready to be sown, without any further treatment, whatever.