for the time being that no single block shall weigh more than 2,000 lb.

New Process of Making Plate Glass

PILKINGTON BROTHERS, LTD., of St. Helens, Lancashire, have just announced the successful development of a new process of making plate glass. In the new process the plate glass is produced with a fire-polished finish, so that the lengthy grinding and polishing operations which are necessary with the present method of producing plate glass are eliminated. The crux of the process which contains the revolutionary idea is that the molten ribbon of glass, which flows from the usual tank furnace containing the molten glass through a pair of rollers, is then supported on the surface of a bath of liquid metal. This is at a sufficiently high temperature for the under-surface of the glass to take up the extreme flatness of the surface of the liquid metal while at the same time the top surface can be subjected to sufficient heat to produce a good fire polish. This new operation takes place in a chamber containing a controlled atmosphere. Pilkingtons have named the new process the 'float process' and are referring to the new product as 'float glass'. Ordinary window glass, known in the industry as sheet glass, is also produced with a fire-polished surface by drawing upwards from the surface of a bath of molten glass, but the quality of this type of glass is not sufficiently good for its use in motor-car windows, shop windows, or for the preparation of mirrors, and it is for applications of the kind just mentioned that plate glass is in demand. The growth of the motor-car industry has, of course, made the demand for plate glass rise steeply, and this invention is thus a very timely one.

The history of the manufacture of plate glass can be seen to follow a pattern in recent years of the gradual development of an existing process until a fundamentally new idea occurs. About the beginning of the first century A.D., flat glass was first made by the crown process, in which a flat disk of glass was spun on the end of an iron. The method of making sheet glass by fabricating a cylinder which was then split and flattened was first described in about A.D. 1100; the casting and rolling process of making plate glass was invented in France towards the end of the seventeenth century. In 1910 the cylinder method was mechanized and cylinders up to 40 ft. long and 6 ft. in diameter were made. Mechanical production of sheet glass by drawing flat sheets of glass directly from a tank was first effected in Belgium just before the outbreak of the First World War, and in 1920 the continuous flow process of plate glass manufacture was developed in the United States. Pilkingtons have largely been concerned in the development of this process, leading to the famous twin-grinding machine, which grinds and polishes both sides of the glass simultaneously. In the light of this background, it can be seen that this new invention is justifiably described as revolutionary.

Cambridge Instrument Co., Ltd.: New Research Laboratory

CONSTRUCTION has commenced of the new Research Laboratory for the Cambridge Instrument Co. Overlooking the River Cam and Jesus Green, and within ten minutes walk of the centre of Cambridge, the 20,000 sq. ft. building will provide an imposing frontage for the Cambridge factory. The top floor with generous roof lighting will form an ideal design and drawing office, and the three floors below are being fitted with the latest equipment for instrument work involving physics, chemistry, electronics and precision mechanical engineering. The new building heralds a considerable expansion in research, development and design for which staff are now being recruited. The architects are Messrs. Edward D. Mills and Partners, designers of the British Industries Pavilion at the Brussels Universal and International Exhibition, 1958, and Messrs. J. Jarvis and Co. are the main contractors. The new Laboratory is scheduled for completion in June.

Iron and Steel at the Science Museum

A NEW exhibition on the principles underlying the manufacture of iron and steel will be opened by Lord Mills, Minister of Power, on February 6 at the Science Museum, South Kensington. Exhibits have been drawn from the Museum's own collections and contributed by makers and users of iron and steel, by other museums and individual donors, to illustrate the development of that industry from its earliest beginnings. By far the largest contribution has been from the British Iron and Steel Federation, which has not only provided a large number of new exhibits but also financed the whole project. Only outstandingly important technological aspects and developments can be touched upon in a limited space—direct reduction of iron ore, charcoal-blast pig-iron and its fining to malleable iron, coke-iron, foundry work, puddling, crucible steel and cementation, modern blast-furnace practice, Bessemer, open hearth and alloy-steel making and modern methods of casting, forging, rolling, drawing, together with theoretical metallurgy, testing and research. The treatment is not exhaustive but provides an excellent stimulus to further study.

British Association: Granada Lectures

A NEW series of annual lectures, organized by the British Association for the Advancement of Science and sponsored by Granada TV Network, Ltd., on the theme of "Communication in the Modern World", has been announced. The broad purpose of these lectures is to explore the impact of communications in the field of the mass media—Press, radio, television and film—in their sociological, political and technical aspects. The first series of three lectures will be given in London in October 1959: the first by Sir Edward Appleton, who will speak on the significance for society of long-range communication and the exploration of space; the second by Dr. Edward R. Murrow, the American television and radio commentator and news analyst, who will speak on the impact of television and radio in the field of politics and public affairs in a democracy; the third by Sir Eric Ashby, whose subject will be methods of presenting scientific information to the man in the street and the extent to which the part played by the mass media in this field might be extended or improved. The lectures will be delivered to an invited audience, to include representatives of science, industry, politics, education, local government, the mass media and others. There will also be a limited number of tickets available to the public. The texts of the lectures will afterwards be published. With each lecture will be linked a television programme, in which it is hoped the lecturer will participate, dealing with the subject-matter of the lecture in appropriate television form for a wider audience.