

LETTER FROM LONDON



## Retaining the links

**The Czech crisis  
disrupted exchange between  
the Soviet Union and  
Britain, but it will resume**

by Larry Miller

**A**t the time Russia and its Warsaw Pact allies were invading Czechoslovakia there was in London an exhibition of Soviet trade which everyone hoped would spark a new era in East-West technological exchange.

Despite an emotional reaction to the event, British businessmen and scientists are taking the view that it is now more than ever important to continue the East-West dialogue. The hard line in the Kremlin is likely to change eventually, they feel, and links once severed are extremely hard to reforge. The London consensus is that though the invasion may have delayed matters it will not have negated cooperation altogether.

Technological exchange is most likely to be achieved through the medium of trade. Certainly there is enormous potential for the development of trade between the two camps. Last year Britain imported more from the Soviet bloc than she exported; and her share of Soviet foreign trade (as opposed to that from the bloc as a whole) was a mere three percent.

A five-year trade agreement between Britain and Russia is now at the end of its term, but before the Czechoslovakian debacle the president of the Board of Trade, Anthony Crosland, and the minister of foreign trade of the U.S.S.R., N. S. Patolichev, had already agreed that the two sides should exchange new draft agreements. This will presumably still happen, though it may take a little longer than it was hoped.

To help smooth the flow of information, the British Government has committed itself to technological exchanges with Rumania, Hungary, Poland, the Soviet Union and Czechoslovakia. The odd man out, Bulgaria, was shortly to have been drawn into the net.

It has never been made clear how these exchanges are to operate. No one seems to be suggesting that large numbers of joint research projects should be launched; on the other hand, everyone hopes that something more substantial will result than numerous specialists attending one another's conferences.

It seems to boil down once again to trade—and to the exchange of technological information in the course of trade. Groups of technical experts have already visited each other's countries, and the pace may even quicken.

Britain has £50 million of industrial contracts in the pipeline, and since firms have been wooing the Eastern European market for more than a decade they are unlikely to call a halt at this time.

The Soviet Union is expanding her

chemical industry at the rate of about five percent per year, and she needs both plant and know-how to achieve this. These commodities she is eager to buy from the West. To pay for this she has in the past relied on the sale of raw materials such as timber, ore, coal and furs. Lately, however, she has been relying more on industrial products; hence the need for a trade fair.

But what will Britain gain out of the exchange? She hopes to gain in two principal ways: first, by observing how the Russians, in particular, try out technological innovations on a large scale (something which is not always practicable in a small country), and secondly, by obtaining information about special processes which the Russians have developed to suit their own particular circumstances.

The British steel industry, for example, has already received useful impetus from Russia's success in developing the continuous casting of steel—a process (slightly misnamed) in which steel is cast in long bars rather than squat ingots which have to be rolled to produce bars.

Thus, the first step in fabricating products continuously rather than in large unwieldy batches, has stimulated development in Britain of what is known as spray steelmaking (SN: 5/13/67, p. 454). In this process molten iron directly from the blast furnace is poured down through a ring of oxygen jets that atomize it and (together with added limestone) oxidize impurities several thousand times faster than is possible with conventional techniques. Spray steelmaking could readily be combined with continuous casting to produce a fully integrated continuous iron and steelmaking process.

Electro-slag welding and electro-spark machining are two more processes that have been pushed hard in the Communist bloc. The first produces cleaner welds because it allows impurities to be dissolved in a slag or scum that can afterwards be removed; and the second allows hardened die steels to be machined to fine limits without cracking by eroding the metal away with a carefully directed stream of sparks supplied under a blanket of liquid.

In spite of recent politics, Russia, like the rest of the Communist bloc, can give British technology that challenge it so often needs. In exchange, Britain can help Russia to streamline her own neglected industries. Both parties stand to gain from the deal, and the free exchange can only make things better.