Steel imports have been responsible for changing some of the domestic pricing practices. They caused the elimination, between 1962 and 1966, of the enormous and unjustified \$20 per ton differential be-

tween east coast and west coast prices.

They have recently caused some mills to discontinue published pricing and to negotiate prices for such items as wire rods, wire products, and reinforcing bars. They have now induced some producers to make contracts at firm prices rather than the burdensome "price in effect at time of shipment."

Steel prices in the United States are higher than those in any other major steel-producing nation, making all products using steel more expensive. This fact makes it difficult for exporters of steel end products to compete abroad, unless they too have access to steel at world market prices, as do their competitors abroad. If they don't it will simply worsen the balance of payments.

The evils of the steel pricing system have a corrupting effect on the domestic steel industry itself. Refusing to compete in price, the U.S. mills allegedly compete in service. The costs of white collar employees and the overhead of the domestic steel mills are much higher than

abroad.

## RESEARCH AND DEVELOPMENT

Another and almost disastrous effect of having the steel mills act as an oligopoly rather than as competitors is the lack of pressure on each mill to do research and development to get ahead of its competitors. In spite of enormous overhead, only 60 cents per \$100 of sales is going into R. & D. In recent years the steel industry has claimed to have upped its expenditures. The latest data indicate only \$110 million R. & D. against approximately \$17 billion in sales. This represents virtually no relative change since 1964.

Furthermore, it took the major steel mills nearly 15 years to put the basic oxygen process into significant use. During this hiatus, the U.S. steel industry invested billions of dollars to construct 40 million tons of open hearth capacity. Yet, it is well known that it costs \$20 to \$25 less per ton to build basic oxygen capacity and the operational sav-

ings run from \$5 to \$10 per ton.

While the industry has finally seen the light of the basic oxygen furnace, we now see a similar lag in the adoption of continuous

In the late 1940's and early 1950's, continuous casting experimentation was more advanced in the United States than elsewhere. Nonetheless, the large domestic steelmakers have shied away from wholesale adoption of this radical innovation. Instead, they have chosen to invest in conventional blooming and slabbing mills.

The Europeans and Japanese were less hesitant. Today, the only use of continuous casting on a regular production basis, for the major portion of mill output, is found abroad and in a number of smaller plants in the United States which have sprung up in recent years

and which are operating profitably.

These plants, of which there are a number in operation and more being built, operate on the basis of local scrap, electric furnaces, continuous casting, and conventional rolling mills.