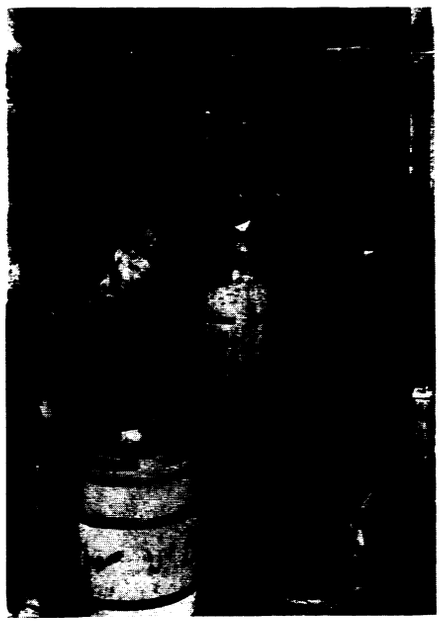
create new uses for it, uses so valuable to the buyer that he will order moly year after year.

Several other areas in the world are small producers of moly. Climax produced 15,000,000 pounds of concentrates in 1936, the last year for which figures are available. Total U. S. production during the same year was only about 17,000,000 pounds. Mammoth, Arizona, produced a little more than a million pounds of moly concentrates during that year, and the remaining million pounds came from New Mexico, Utah, and Washington. The other 3,500,000 pounds of moly produced that year came from ten different countries.

Wartime use of moly, as a hardener for armor plate, a toughener for cannon, and for lightening aircraft, increases the strategic value of the Bartlett Mountain moly deposits, but their real value is in peacetime industry. Moly is about the only steel-alloying material which is plentiful in the United States, although we are the world's greatest user of alloy steels. When a tougher, or harder, or more temperature-resistant steel is needed, the engineers of the various mills try moly, and often they find that it, or a combination of moly with nickel, or tungsten, or chromium, will do the job. Climax engineers cooperate in these researches.

Twenty years ago, you couldn't sell a ton of moly at a profit. Today, the mines must be worked continually to meet the demand, and they never seem to quite catch up. Will the increasing use of alloy steel, particularly molybdenum steel, bring a new era to metal manufacture? Many engineers think it will.

Science News Letter, September 17, 1938



READY TO ROLL

Last stage before it starts on its travels: the "moly" concentrate, now practically pure molybdenum sulfide, is packed in stout barrels.

CHEMISTRY

Chemical in Water Stops Corrosion of Iron Pipes

CORROSION of iron water pipes, particularly those carrying hot water, can be markedly decreased by adding a small amount of sodium sulfide to the water to combine with the free oxygen present in it, scientists of the Kaiser Wilhelm Institute have found.

The free oxygen is the substance primarily responsible for rusting the pipes. The substance left by the combination of the oxygen and sodium sulfide is harmless.

Science News Letter, September 17, 1938

ENGINEERING

Rubber Bearings Used In Underwater Work

ADD RUBBER to your list of unusual materials now being used for surfaces of bearings. Copper, lead, babbitt metal, rarer cadmium and indium, even silver, are the best known members of the bearing family for they all possess special properties of toughness, long wear, corrosion resistance or other desired characteristics. Flexible, yielding rubber seems a strange addition to this bearing family.

And yet, when you study the places where rubber bearings find usefulness the application of rubber is not too surprising. Pumping systems for drinking water and many solutions used in the preparation of foodstuffs or beverages comprise one application. A few others would include: high-speed motor boats, underwater marine work, hydraulic turbines, centrifugal pumps, agitators, washing machines and domestic and industrial liquid-handling equipment.

Secret of rubber's usefulness as a good bearing material is its ability to suffer slight displacements and yet keep a tight fit. Thus a grain of sand or other hard particle only makes the rubber surface give and does not force the particle into the axle, or bearing surface.

As reported to the Institution of Mechanical Engineers in London by Sydney A. Brazier and W. Holland Bowyer, water or other fluid, and not oil, is the lubricant with rubber bearings. A series of slots are provided in the bearing and the fluid passes, rather freely, through these interstices so that it can wash out dirt particles and also remove heat, for rubber's heat conductivity is so low that this factor is a problem in the use of these novel bearings.

Science News Letter, September 17, 1938

Brook trout bury their eggs in beds of clean gravel in autumn, generally in spring-fed headwater streams.