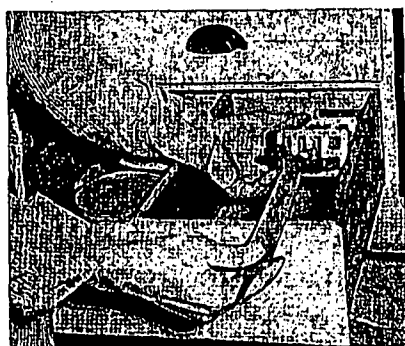


PRACTICAL IDEAS...here's the trading post for you

operating and maintenance short cuts

STEVE ELONKA, Associate Editor

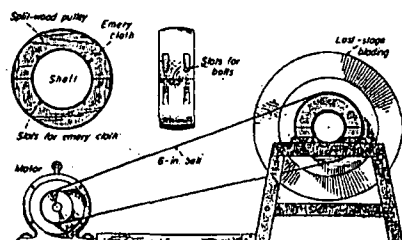


Store Files To Protect Edges

IN MANY SHOPS the job of storing files is a problem. In maintenance department tool cribs, files are sometimes laid across pegs or in individual racks. More often they get thrown together, thus losing teeth or dulling their edges. A simple but effective way to

store files is shown. Make a small plywood pigeon-hole box hinged to the back of a drawer. In this way files are easy to remove or replace, yet remain separate and sharp. Whatever method is used, separate the files.

C F BURNLEY Oakland, Calif.



Polishing Scored Shaft of Turbine

DURING PERIODIC internal inspection of our 18,800-kva turboset, we found that shaft (where it passes through gland on exhaust end) was badly scored by carbon sealing ring. Job was to polish this rough section before new carbon rings were fitted with right clearance.

As time was limited, and no suitable lathe to take large spindle, we had to improvise rig, sketch.

We found a 20-hp dc motor. Its speed

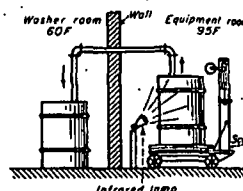
could be controlled by resistance. I scrounged only available belt from another department and had a wooden split pulley made on short order, 8 in. larger in bore than shaft. We fitted it with emery cloth as shown.

Assembling whole rig with motor and spindle securely blocked, we slowly (and with apprehension) started the motor. Shaft began rolling OK.

Oiling liberally, we moved revolving

pulley endwise to cover length of rough surface, also to prevent scoring, turned spindle at intervals against rotation of pulley. To insure roundness we changed emery cloth frequently. As the job progressed, we gained confidence and applied pressure to belt to secure maximum grinding. Motor was also speeded up. Job turned out to be excellent, besides saving time and expense.

V SMOLSA Glace Bay, Nova Scotia



Separating Oil and Freon

BECAUSE LABYRINTH SEALS in our Freon centrifugal compressor for air conditioning were bad, Freon mixed with circulating oil. So every month we had to extract gas from cooler and replace with new gas.

Here's how we separate gas from oil. We have cooling washers besides conditioning equipment room, in which are located centrifugal compressor (300-hp motor) and air compressor (60-hp motor) for cleaning. In equipment room, temperature is high, 95 F, whereas in washer room, it is only 60 F.

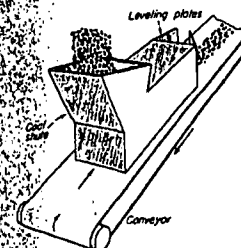
We placed drum of oil-and-gas mixture on a weighing scale in air-conditioning room, sketch. Then we connected this drum with a 3/4-in. pipe to an empty drum on other side of wall. Inside washer room. Heat makes Freon boil in drum and condenses in drum in cool washer room.

We determine amount of oil in mixture by weighing a sample of mixture, then we weigh just the oil in sample after all gas boils out. By using this method and weighing drum, we know when process is finished.

To speed boiling, we shine four infrared lamps on drum in air-conditioning equipment room.

System is so successful we have saved about \$2000. Now we have new seals and oil mixing with gas is reduced to a minimum. This operation is simple.

E QUINTERO, Banta Cuba



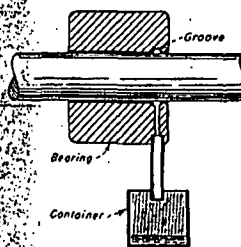
Plates Adjust Coal

COAL IS DUMPED into chute, sketch, by double shaker. We could never set shaker completely open because too much coal dumped on belt at one time. Then coal would roll off.

We corrected this by welding two leveling plates at end of chute as shown. Plates are at an angle to restrict coal dumping on belt. They are of 3/4-in. plate iron, and welded to chute.

Because we store a lot of coal in summer, this improvement saves us about three weeks each summer, as shaker is now run full speed, without spilling coal. Plates could be made adjustable.

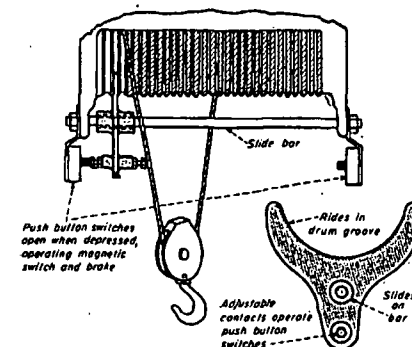
L J COLLEN Clinton, Iowa



Shaft Oil Leakage

OIL LEAKED along a motor shaft but we stopped it by cutting a groove in the bearing, sketch. Groove is cut around the bearing's entire circumference and is placed about 3/16 in. from the bearing's end. A drain hole drilled in groove's bottom is connected to a 3/4-in. pipe. Oil creeping along the rotating shaft is thrown by centrifugal force into the groove, then drains off into container. No more wasted oil now.

T H CARR Shipley, Eng.

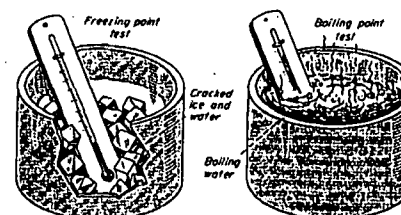


Limit Switch Protects This Hoist

MOST ELECTRIC HOISTS, especially the monorail or hooked-up type, have a trigger arm, which is tripped by the raising hook that has a switch for instant stopping and brake operation. This prevents overwind, but does not take care of equally dangerous condition of a loaded hoist running out too far or slipping anchor end of hoisting rope. So we made our own improvement.

Sketch shows a foolproof design I fitted to a 5-ton hoist. It gives positive control to desired limits of hoisting and lowering. Stretching hoisting rope does not interfere with original setting and adjustment. It's also compact, not affected by swinging load and there's no chance of missing or fouling lower hook block, etc. We wouldn't be without.

F C SALTER Vancouver, B.C.



Testing Thermometers In Your Plant

AT TIMES you have to know if an ordinary wall thermometer is accurate. A simple check is to submerge the thermometer's bulb end in an open-top container, partly filled with cracked ice and water, as shown. If the thermometer reading drops to 32 degrees and remains there, the thermometer is reasonably accurate.

To test the boiling point of a hot-

water thermometer, heat a container half full of water until the water boils. Have bulb end of thermometer submerged below the water's surface but a couple of inches from the container's bottom. If temperature reading of the thermometer reaches 212 degrees and remains there, thermometer is accurate.

T TRAIL Catonsville, Md.

(Continued on page 130)