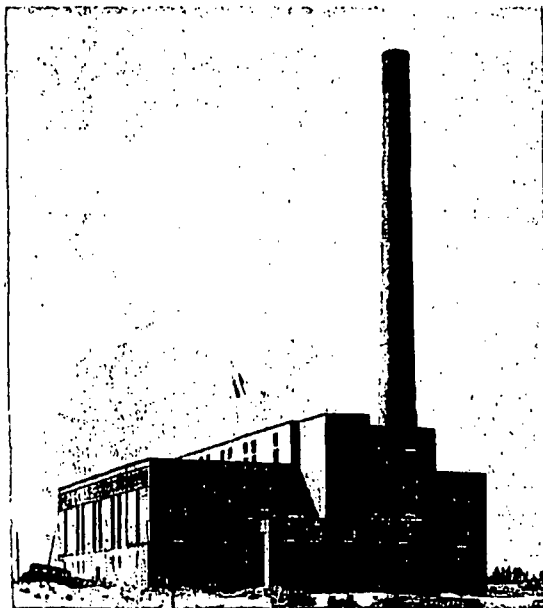


More PLANT PROBLEMS

Begin on page 134



FOR GOOD RESULTS, both brick and steel stacks must be carefully designed, built

NEW BREACHINGS were recently installed in our twin, 150-ft stacks. During construction we decided out of curiosity to check stack size. Of course, there wasn't too much we could do if calculations showed size was wrong, but we went ahead anyway. Here are some things we learned.

Many stack types and sizes may do the job. Cost and economy may be the deciding factor in the long run. Stack type, its height and diameter are important factors in cost and capacity. Stack must be high enough to prevent soot and smoke from becoming objectionable to the neighborhood.

EDWARD DELMICK Brooklyn, N. Y.

STACK IS OK for rated output of 20,000 lb per hr, but may be a trifle undersized for greater outputs.

JOHN B THUMAN Buffalo, N. Y.
E J ANDERSON Cleveland, Ohio
MAX SHERITT Huntington, W. Va.

EDITOR'S NOTE: Some readers disagree with Reader Moss and the other contributors. Here are their comments.

SIZE IS WRONG. It should be: height 155 ft, diameter 40 in.

E MOLINA CORDERO
Buenos Aires, Argentina

HEIGHT is too great. With a 50-in. diameter stack on this job, its height need be only about 120 ft above the boiler-room floor. This will give enough draft to run at full load with a wide-open control damper.

F M BRUNN W. Englewood, N. J.

MINIMUM DIAMETER should be 39½ in. with a height of 250 ft to meet draft requirements on this job. Draft with stack proportions proposed by CK is only 0.90 in., while calculated draft is 1.25 in., according to my figures.

P J GARDNER Forest Hills, N. Y.

YOUR NEW PROBLEMS

1 What's Best Way to Remove Ammonia?

We have 2000 lb of ammonia in our refrigerating system, which serves a large cold-storage plant. Because we have a large number of employees in the basements we need some quick way of disposing of this ammonia in an emergency.

We have adequate water supply from an outside source as well as a 50,000-gal. basement storage tank. What method, if any, could we use to mix this ammonia with water in the storage tank, or mix it and then discharge it to waste? We'd like to be able to get rid of the ammonia in about 10 minutes.

Can Power readers suggest some rapid mixing method, permitting safe disposal of our ammonia?—TS

2 What Causes These Burn Spots on Bars?

The commutator on a 25-hp 6-pole 70-rpm dc shunt-wound elevator motor has six equally distributed burn spots corresponding to the brush spacing. Each burn covers an area of four commutator bars, and begins to appear a few days after resurfacing the commutator.

We have had this trouble since we replaced a few coils several years ago. Believing the cause might be in the coils, I checked them repeatedly without finding any trouble.

When elevator ascends no sparks occur, but slight sparking appears when it descends. There is somewhat more sparking during starting and stopping.

We have several other machines in service and though they spark there are no burned areas on their commutators. What causes this trouble? How can we cure it?—VN

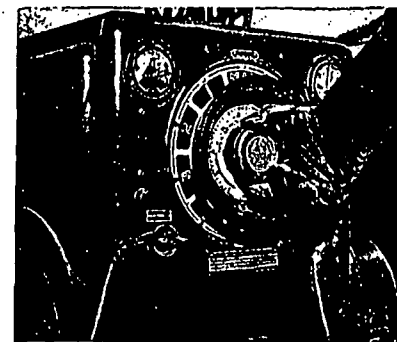
Don't miss next month's problems. Another chance to use your ingenuity

Will you help readers who sent us problems? Extra pay for photos or sketches.

POWER

HOW TO Burn Foundation Holes

Now you can pierce rock, concrete, stone, granite, asbestos and other refractory with electric arc and welding machine of 400 amp. up. Flame of 5 to 8 in. is over 8000 F. Double pole electrode and holder make grounding unnecessary. Piercing speed: 1 to 3 in. per min; it depends on material.



1 Set the welding machine of any conventional design to 400 amp or over. This depends on the material to be pierced

Courtesy, Electrode Welding Alloys Corp



2 Insert rod in special holder. Rod is 18 to 20 in. long — may be longer



3 Place end of rod on concrete to be pierced for bolts, turn on current



4 With the current on, push steadily through the concrete to needed depth



5 Move rod in and out of hole while burning. For hole larger than rod diameter, use a slow, spiral downward motion



6 Place the anchors in holes, move machine, and screw down bolts into the anchors. This job was done in few minutes