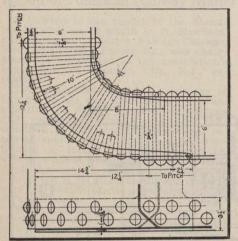
that some of the members are now ex-

periencing considerable difficulty with.

THROAT SHEET.—From the replies received, the distance from the top of the grate to the bottom of the lowest



Type of Mudring Corner.

boiler tube on wide firebox engines is a minimum of 14 ins. and a maximum of 26 ins., average about 22 ins. Narrow fireboxes have a minimum of 13 ins. and a

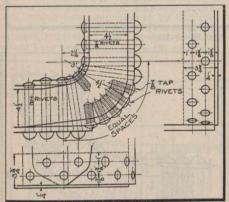


Fig. 10. Type of Mudring Corner.

maximum of 281/2 ins., average about 20 ins. One member who uses hard coal, advises a distance of 81/8 ins. minimum and 12 ins. maximum. This height is

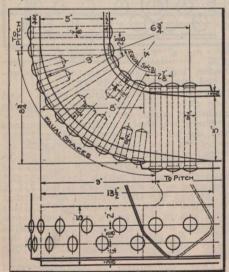


Fig. 11. Type of Mudring Corner.

limited due to the design of the locomo-

Your committee recommends as deep a throat sheet as the design of the loco-motive will permit. On consolidation lo-comotives the depth of the throat sheet is limited, due to the frame passing un-

der firebox and on account of rear driving wheel, which is located under fire-box. On Atlantics, Mikados, Mallets and Pacific type a deeper throat sheet can be obtained, as it is not necessary for the frames to pass under the firebox. Your committee also suggests the design of throat sheet as shown on fig. 13, on boilers with sloping mud ring to allow for

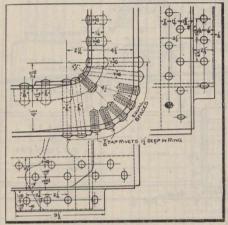
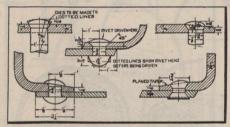


Fig. 12. Type of Mudring Corner.

more uniform spacing of stay bolts and location of arch tubes and simplifies the flanging of the throat sheet and flue

From the replies received in regard to thinning out of flue and door sheets, also the use of countersunk rivets where these sheets are joined to the side sheets, you will find the different methods followed out in fig. 14. About 50 % of the



Use of Countersunk Rivets at Juncture of Sheets.

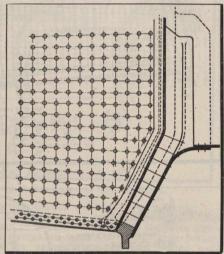
members thin out these sheets and apply countersunk rivets. It is generally acknowledged that the thinning of the sheets and the countersinking of rivets is necessary on oil burning locomotives. The general practice seems to be to countersink these rivets about half way up the side sheets. No data were given in regard to which practice is the best from a maintenance standpoint.

with this type of fire door for a number of years. On boilers so equipped, they have had several cases where the door sheets have remained in perfect condition although two sets of side sheets and a second back-flue sheet had been applied a second back-flue sheet had been applied and cracked badly. In every instance the door hole remained in practically perfect condition when the rest of the firebox was cracked to the point of renewal. Boilers equipped with this type of fire-door hole give larger water space, fewer staybolts about the door seam, seems to give freedom for expansion and contraction and also largely prevents mud and scale collecting at this prevents mud and scale collecting at this

point.
Six members favor style E, and eight members style D.

It seems to the committee that style

A, would have a tendency to collect mud



Throat Sheet for Sloping Mudring.

and burn out. The committee has no choice between styles B. C. D. and E.

NUMBER AND SIZE OF FIRE Doors.—We find that various sizes and numbers of door holes are used on different types of boilers.

Canadian Freight Association, Western Lines.

At the annual meeting in Winnipeg, Aug. 1, the following officers and committees were elected:—
President, C. E. Dewey, General Fr. ight Agent, G. T. Pacific Ry.; Vice President, W. C. Bowles, General Freight Agent, C.P.R.

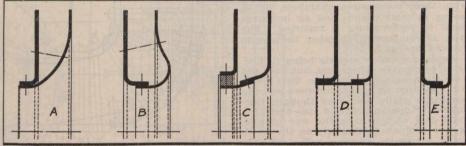


Fig. 15. Various Designs of Firedoor Holes.

SPACING OF RIVETS IN FIREBOX Seams.—Your committee suggests % in. rivets spaced 2 ins apart, as this is used by the majority of the members who re-

plied to the circular.

DESIGN OF FIRE-DOOR HOLE. Fig. 15 shows various designs of fire-door holes used by different members. Three members advise that they use style A, Three which is the O'Connor type of fire door. One of the members reports that they have had 1,200 locomotives equipped

Executive Committee.-C. E. Dewey, W. C. Bowles, G. Stephen.

Car Service Committee.—A. Hatton, J. P. Driscoll, T. P. White, W. B. Harris.

Classification Committee.—W. B. Lanigan, G. Stephen, C. E. Dewey, W. G. Manders, R. J. Foreman, P. H. Burnham, W. C. Bowles.

Inspection Committee.-W. G. Manders, G. H. Smith, W. J. Hunter, P. H. Burnham.