

valve taking the place of a Non-return Boiler Stop Valve would be inadequate, as the loss of steam from the other boilers of the battery would be tremendous before an ordinary valve could be reached and closed, assuming that it would be possible to do so, which in the majority of cases it is not.

Should it be desired to cut out a boiler for the cleaning or repairs, the Non-return Boiler Stop Valve will not permit steam to enter the boiler from the header, even should the handwheel be operated for this purpose, as it cannot be opened by hand, but can, however, be closed.

The proper method of attaching a header to a battery of boilers is illustrated in Fig. 13. A Non-return Boiler Stop Valve should be attached to each boiler and connected to an angle valve on the header. A pipe bend should be used for connecting the valves as this will allow for expansion

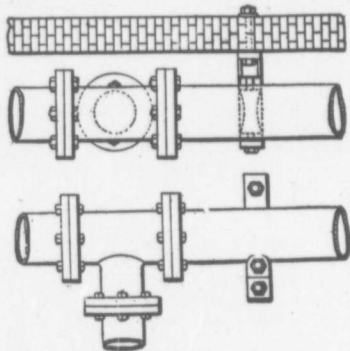


Fig. 14.

and contraction. The pipe should slope a trifle downward toward the header and a suitable drain provided. This drain should be opened and all water permitted to escape before the angle valve is opened, thereby preventing any damage due to water-hammer.

METHOD OF PREVENTING VIBRATION AND SUPPORTING PIPES:—Fig. 14 shows a main header carried on suitable frames fitted with adjustable rollers.

While we have illustrated the pipe as resting on the adjustable rollers, nevertheless the rollers may also be placed at the sides or on top of the pipe to prevent vibration, or in cases where the thrust from a horizontal or vertical branch has to be provided for.

This arrangement will take care of the vibration without in any way preventing the free expansion and contraction of the pipe.