Please read and send in as full a discussion as possible at earliest date.

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THE DISTRIBUTION OF STRESS IN RIVETED CONNECTIONS

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(Read before the General Section, April 19th, 1906.)

PREVAILING CONCEPTIONS OF STRESS-DISTRIBUTION.

The inequality of distribution of stress among the rivets of a riveted connection is a matter of general agreement among engineers. In most cases, however, whatever inequality of stress-distribution exists, is attributed to the imperfect matching of holes, and the want of close fit of the rivets to the walls of the holes, thus placing the rivets under different conditions for the resistance of shear. It is further agreed that these conditions render it impossible to tell anything definite about the distribution of stress in riveted connections, and that more refined methods of design than are at present in use are out of the question.

ACTUAL CONDITIONS AFFECTING STRESS-DISTRIBUTION.

Two erroneous assumptions underlie the above conclusions:

First. It pre-supposes that if a connection containing a number of rivets in the line of the stress-producing force, as shown in Figure 1,

