

## RUNNING DOWN VALVES

Experience in H.M.S. *Duke of York* showed that it was extremely difficult to remove the running down valves and to face up the pad piece on the water drum because of the very awkward position in which the valve box was mounted and to the proximity of the boiler blow-down cocks. The threads of the nuts and studs securing these valves, after three months in position, became rusted and seized, making the use of hammer and chisel almost inevitable to remove them. It sometimes took 12 hours to remove the two back nuts. Even when the valve was removed the removal of the studs, before facing up of the pad piece could begin, was a difficult task owing to the awkwardness of the position : this became far more serious when a stud broke flush with the surface. It was suggested that a considerable improvement might be effected by welding an elbow piece to the water drum with a vertical flange in an accessible position for attachment of the running down valve. The provision of special nuts,  $1\frac{1}{2}$  inches long, at the back of the joint of the running down valve has provided a partial answer, at least, to the *Duke of York's* difficulty, and this device will probably be very useful to many other ships. In current advance construction the elbow piece is being welded to the water drum during manufacture.