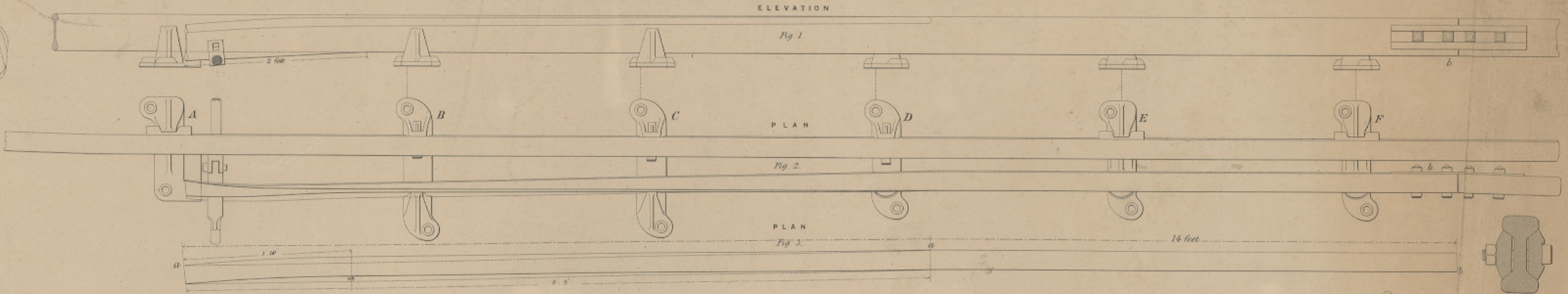
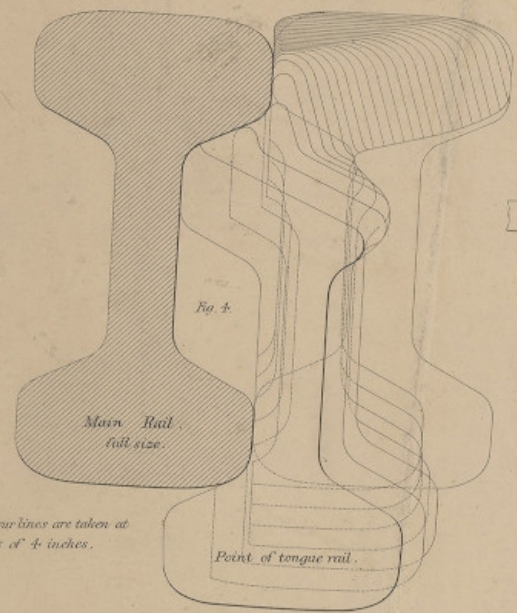


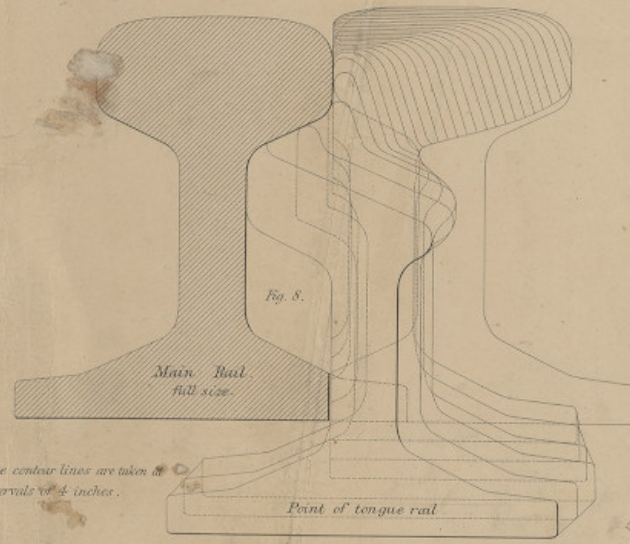
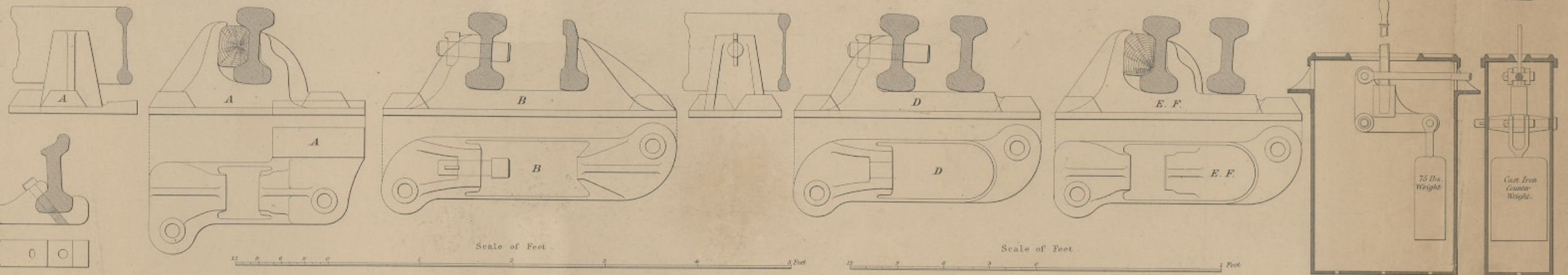
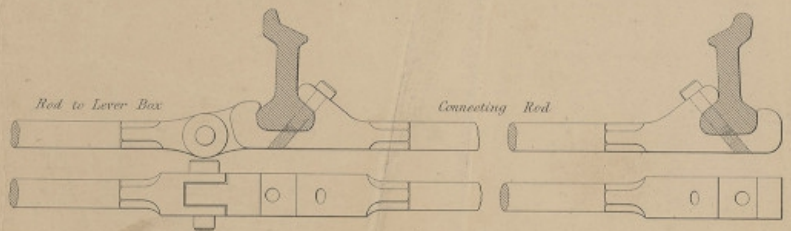
ROBERT RICHARDSON'S PATENT SWITCHES, APPLICABLE TO DOUBLE HEADED AND FLAT BASED RAILS.

AS USED IN ENGLAND, IRELAND AND FRANCE.

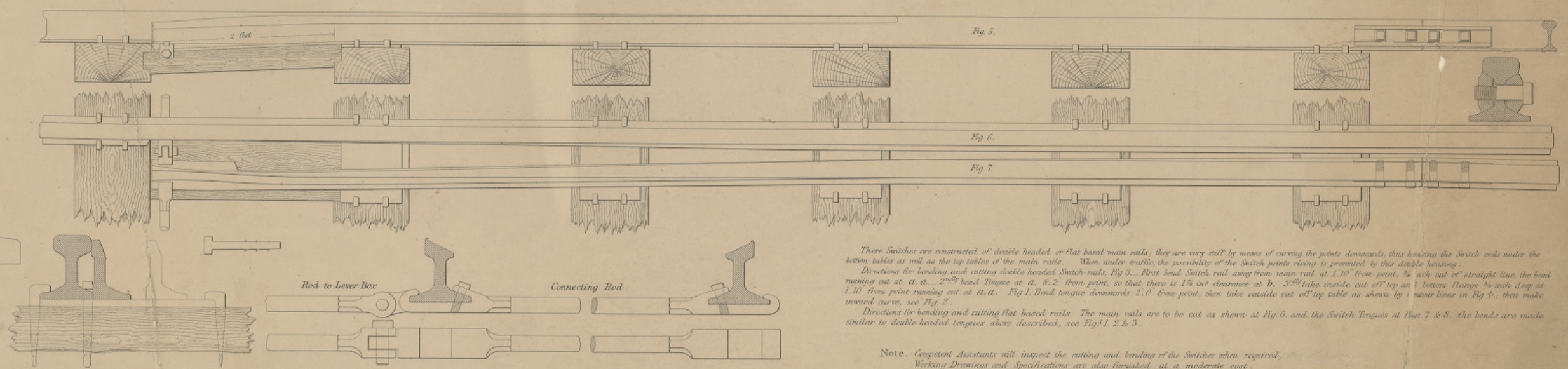
26, GREAT GEORGE ST. WESTMINSTER.



The contour lines are taken at intervals of 4 inches.



The contour lines are taken at intervals of 4 inches.



These Switches are constructed of double headed or flat based main rails, they are very stiff by means of curving the points downwards, thus having the Switch ends under the bottom tables as well as the top tables of the main rails. When under traffic, the possibility of the Switch points rising is prevented by this double bending.

Directions for bending and cutting double headed Switch rails, Fig. 5. First bend Switch rail away from main rail at 1.10' from point, 3/4 inch out of straight line, the bend running out at a. a. 2nd bend Tongue at a. 8.2' from point, so that there is 1 1/2 inch clearance at b. 3rd take inside cut off top an 1/2 bottom flange 3/8 inch deep at 1.10' from point running out at a. a. Fig. 1. Bend tongue downwards 2.0' from point, then take outside cut off top table as shown by contour lines in Fig. 4., then make inward curve, see Fig. 2.

Directions for bending and cutting flat based rails. The main rails are to be cut as shown at Fig. 6, and the Switch Tongues at Figs 7 & 8. the bends are made similar to double headed tongues above described, see Fig. 1, 2 & 3.

Note. Competent Assistants will inspect the cutting and bending of the Switches when required. Working Drawings and Specifications are also furnished at a moderate cost.

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