

Frames.— are for the screwed ends only. Expansion brackets of wrought iron to clip frame carefully secured by $\frac{3}{4}$ " studs to fire box, these studs are screwed 12 threads to the inch. Front foot plate, 3-16" thick; back foot plate and draw plate $\frac{3}{8}$ " thick; back plate $\frac{1}{2}$ " thick, all strongly bolted to frame. The draw casting is secured between the foot plate and the draw plate. Two $\frac{7}{8}$ " safety chains and hooks are to be provided, spaced 2' : 6" apart.

PUMPS, &c.—One pump of brass to drawing No. 1115; it must be well secured by iron bolts, each having 2 nuts. Feed and delivery pipes of copper $2\frac{1}{4}$ " outside diam., No. 9 W. G. thick. The feed pipe must be well stayed for its whole length. Delivery check valve cage of cast iron; valve and outer casing of brass; casing finished bright. Pump to have a brass cock on top chamber connecting a $\frac{3}{4}$ " iron pipe running into cab, and at this end to have a two way valve, one way connected to 3 or 4 feet of flexible rubber pipe and a small brass branch or nozzle; and the other way connected to a pipe leading down into ash pan at one corner, clear of damper and mud plugs. One No. 8 injector by Mack, or Seller's, on L. H. side with the necessary handles in cab and copper pipes, all complete.

WHEELS.—Wheels to have cast iron centres (4' : 8" diameter for freight and 5' : 2" diameter for passenger) with heavy balance weights cast in, and hollow oval spokes; to be so good a fit upon axles as to require a pressure of about 60 tons to put them on; they must be securely keyed to axle by a key $1\frac{1}{2}$ " x $\frac{7}{8}$ " in section, tyres to be of approved steel $5\frac{1}{4}$ " x $2\frac{1}{2}$ " thick to finish to 5' : 1" and 5' : 7" outside diameter, to be well secured to cast iron centre by 1" fine screwed bolts between each alternate spoke of wheel extending $\frac{3}{4}$ " into metal of tyre. Crank pins of steel $4\frac{1}{2}$ " diameter in wheel hub; connecting rod bearing 4" x 4"; side rod bearing $3\frac{1}{4}$ " diameter x 3" long, to be tightly driven, and the inside end carefully riveted over.