

WEED BURNER—NORTHERN PACIFIC RAILWAY.

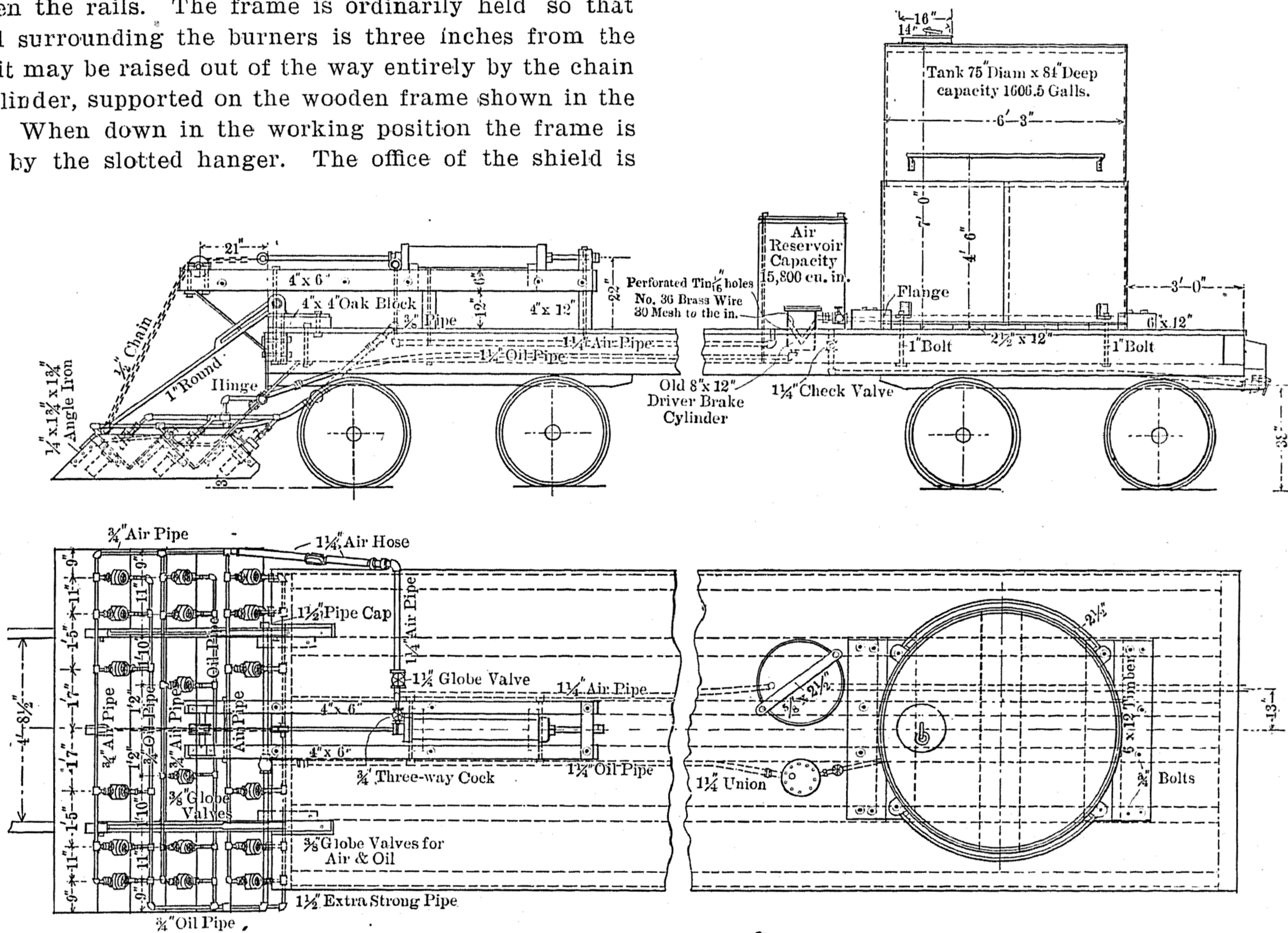
The weed burner, shown by aid of these engravings, was designed and built by the Motive Power Department of the Northern Pacific Railway, and we are informed that it burns ordinary weeds that grow along the tracks at a cost of from \$2 to \$4 per mile, and it will burn about 30 miles per day. The saving effected over hand labor in cutting weeds by a shovel is about \$12 per mile.

The burning outfit is carried on a flat-car, pushed by an eight wheel locomotive, that is especially detailed for this service during the season. The fuel for the burner is oil and the flame is made most effective by an air blast. There are 18 burners carried in a group on a frame hinged to the front end of the car. There are six burners outside of each rail, and six burners between the rails. The frame is ordinarily held so that the shield surrounding the burners is three inches from the rails, but it may be raised out of the way entirely by the chain and air cylinder, supported on the wooden frame shown in the drawing. When down in the working position the frame is supported by the slotted hanger. The office of the shield is

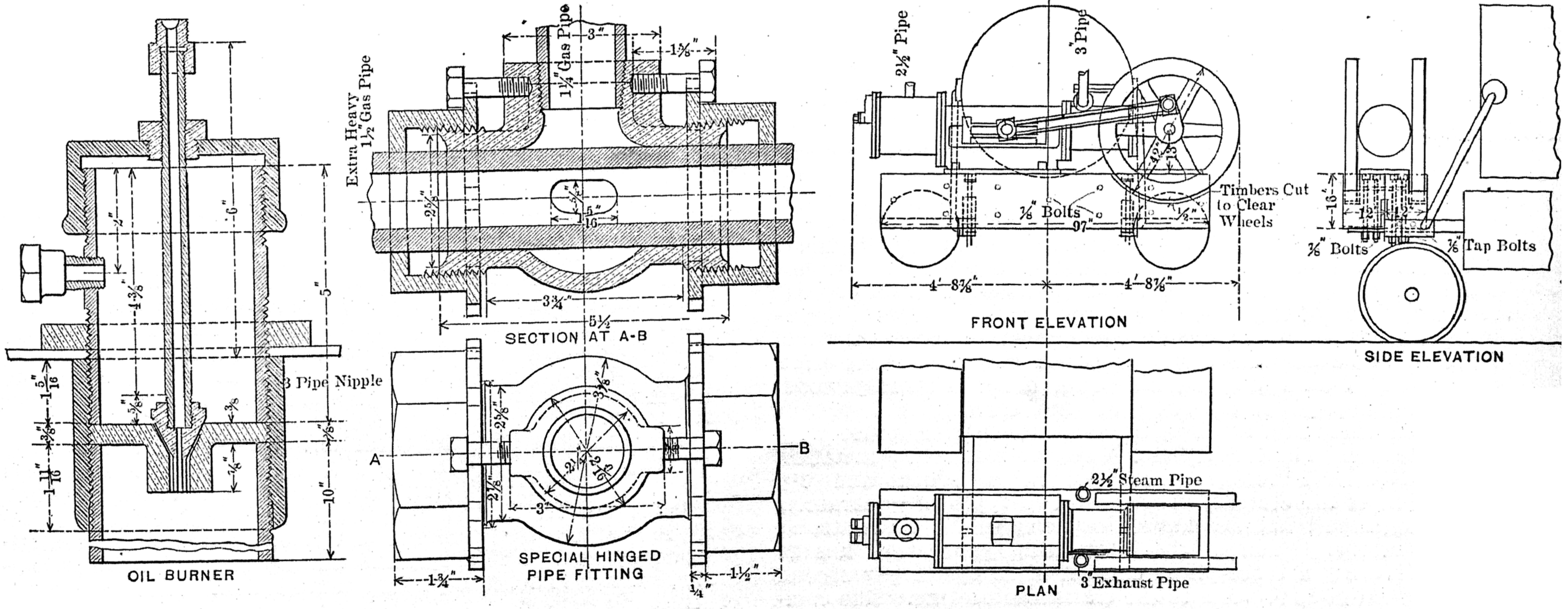
to confine the heat from the burners and deflect it toward the ground, and the heat is so intense as to kill the weeds, roots and all.

The burners are made of 3-inch pipe; the construction being clearly shown in the sectional drawing. The oil comes through the tube at the center of the burner, and the air blast enters at the side and passes around the cone at the end of the oil pipe. The position of the cone may be adjusted by turning the oil tube, which is threaded where it enters the burner. The air pipe connection from the car to the burner flame is made by flexible rubber hose, but the oil pipe attachment required a packed gland joint, which was made as indicated in the views of this special fitting.

The supply of oil is carried in an iron tank, holding 1,600 gallons, which is fitted with a man-hole, and the necessary



Plan and Elevation of Car.



Details of Oil Burner and Hinge Joint.

Location of Air Compressor on Locomotive.

Weed Burning Equipment—Northern Pacific Railway.