HOUSE . . . . . No. 1138

By Mr. Rawson of Newton, petition of J. Henry Goguen relative to the determination of the horsepower of certain steam boilers and engines. Public Safety.

The Commonwealth of Massachusetts

In the Year One Thousand Nine Hundred and Sixty-One.

AN ACT RELATIVE TO THE DETERMINATION OF THE HORSEPOWER OF CERTAIN STEAM BOILERS AND ENGINES.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Section 48 of chapter 146 of the General Laws, as appearing in the Tercentenary Edition, is hereby amended by striking out the first paragraph and inserting in place thereof the following six paragraphs, so as to read as follows: —

Section 48. When solid fuel is burned the horsepower of a boiler shall be ascertained upon a basis of three horse power for each square foot of grate surface when the safety valve is set to blow at a pressure exceeding twenty-five pounds per square inch, and on a basis of one and one half horsepower for each square foot of grate surface when the safety valve is set to blow at twenty-five pounds pressure per square inch or less.

When liquid or gaseous fuel, electric or atomic energy or any other source of heat is used the boiler horse power shall be based on the relieving capacity or aggregate relieving capacity of the safety valve or valves, divided by thirty-four point five, when the safety valve or valves are set to blow at a pressure exceeding twenty-five pounds per square inch.

When liquid or gaseous fuel, electric or atomic energy or any other source of heat is used the boiler horsepower shall be based on the relieving capacity or aggregate relieving capacity of the safety valve or valves, divided by thirty-four point five, divided

by two, when the safety valve or valves are set to blow at twenty-five pounds per square inch or less.

The minimum safety valve relieving capacity shall be determined in accordance with the A.S.M.E. Code, Section 1, Power Boilers.

The horse power of a reciprocating steam engine shall be ascertained upon the basis of a mean effective pressure of forty pounds per square inch of piston for a simple engine, fifty pounds for a condensing engine, and seventy pounds for a compound engine calculated upon the area of the high pressure piston. A variable speed engine shall be rated at its designed mean speed.

A steam turbine engine shall be rated at less than nine horse power when the external diameter of the steam supply pipe does not exceed one and three fourths inches, at fifty horse power when it exceeds one and three fourths inches and does not exceed three and one half inches, and at one hundred and fifty horsepower when it exceeds three and one half inches and does not exceed five inches.