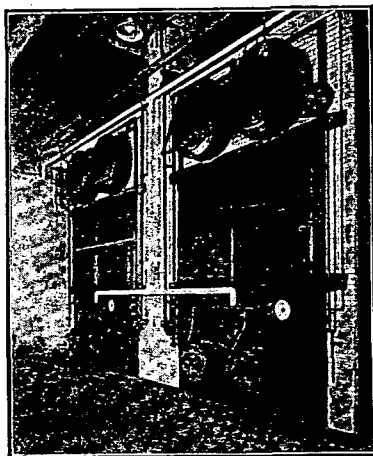


# PETRO OIL BURNERS

## MECHANICAL TYPE INDUSTRIAL OIL BURNING EQUIPMENT



Municipal Building  
New York City

The mechanical type burner atomizes the oil by pumping it at a relatively high pressure through atomizing grooves and an orifice located in the burner head. The oil is forced through the grooves in the atomizer disc toward the center where it enters tangentially and by means of which a rotary motion is imparted to it as it expands through the atomizing orifice.

The mechanical burner is also

installed in connection with an air register, the purpose of which is to control the volume and direction of the secondary air supply. The degree of mixture between air and oil which is attainable through the proper setting of the register lends itself to operation at high efficiency of combustion.

Pumping and heating equipment may be located at some distance from the boiler or in a separate room.

By the installation of more than one burner in each boiler or the use of forced draft apparatus, boilers of any rating may be fired.

Variations in burner capacities are obtained by the use of different combinations of atomizer and orifice discs. By the use of these combinations and variations in pressure capacities of from 50 to 300 b.h.p. may be obtained from one burner under natural draft conditions. By the use of forced draft this capacity may be increased to 400 b.h.p.

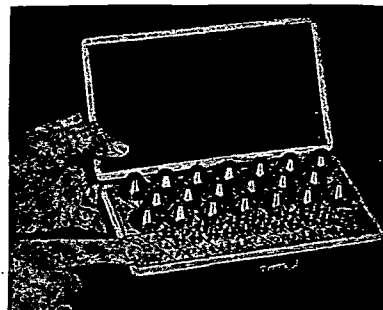
## Winslow Boiler & Engineering Co.

Builders of **Kleen-Heet** Oil Burners

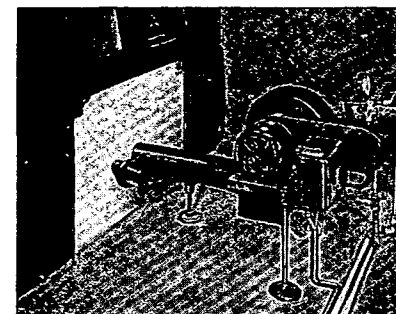
CHICAGO  
844 Rush St.

NEW YORK  
11 W. 42nd St.

GALESBURG  
Illinois



The Nozzle Kit



A Typical "805" Installation

FOR years the Winslow Boiler & Engineering Company has carried on intensive research work. This engineering work has been made highly accurate through the use of modern scientific methods, and in a wide variety of boilers and furnaces covering every type found in practice. The experience of its laboratory engineers has been gained through actual oil burner field work.

FOR efficient heating a burner must be of correct size for the size of building it is called upon to heat. Recognizing this fact, Winslow makes four distinct types of heating equipment. There is literally no building for which there is not a corresponding size or model. For huge industrial plants and industrial uses, there is the Winslow Industrial Burner; for large apartments, hotels, business blocks, churches, and other public or semi-public buildings, as well as large homes, there is a range of installations called the 800 Series, explained below. Just under the 800 Series is the "GJ" model, and for the smaller home, the "CHALLENGER" model KLEEN-HEET has been provided.

### SERIES 800 KLEEN-HEET

**FULLY AUTOMATIC:** The fully automatic operation of this burner means uniform heat, real health, fuel economy, and all without worry and attention. Equipment includes protectostat, thermostat, and boiler control.

**ELECTRIC IGNITION:** Positive electric ignition without magneto or coil box. High tension transformer with two insulated electrodes provide automatic, positive electric ignition and completely eliminates RADIO INTERFERENCE.

**NOISELESS:** Sound reduction to a minimum is accomplished by the simple engineering method of utilizing perfectly machined, smooth running, properly built parts. The KLEEN-HEET 800 is so designed that the correct air volume moves at low velocity, thus eliminating—not merely subduing—combustion noise.

**EFFICIENT:** Combustion efficiency is gained through the perfection of KLEEN-HEET equipment. Burner perfection is brought to its maximum through the use of the Winslow patented nozzles: nine different nozzle tips to determine the size and shape of the flame: eight different nozzle stems to control the volume of oil delivered. The resultant 72 tip-stem nozzle assemblies enable the engineer to select that combination which gives maximum efficiency. In this way a proper flame can be produced regardless of the length or width of the combustion chamber: this feature is a remarkable advance, in fact one of the greatest, in the oil burner industry.

**CAPACITY RANGE:** This ONE burner covers the entire capacity range from 600 to 6800 sq. ft. of steam load.

**FUEL OIL:** 28 deg. Baumé or lighter fuel oil with flash-point between 150 to 190 deg. and a cold test sufficient to resist the lowest temperatures to which it will be subjected, is the ideal fuel for this burner.

**SERVICE:** The burner is particularly characterized by the thoroughness of installation instructions and the least possible number of working parts, each part the best obtainable without regard to cost of production.

**SMOKE ABATEMENT:** Many cities are demanding the eliminating of fuel which increases the smoke nuisance; oil is the logical smokeless fuel; the "805" KLEEN-HEET meets those requirements.

Listed as Standard by Underwriters' Laboratories