

Photo No. 1

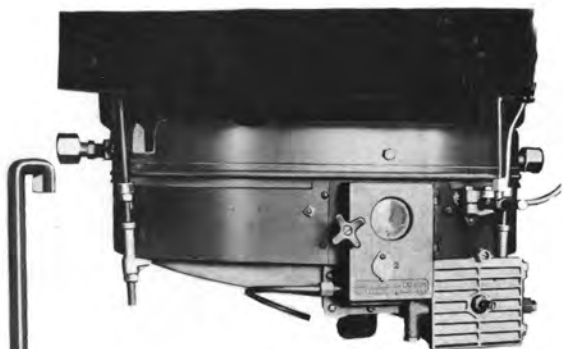


Fig 1

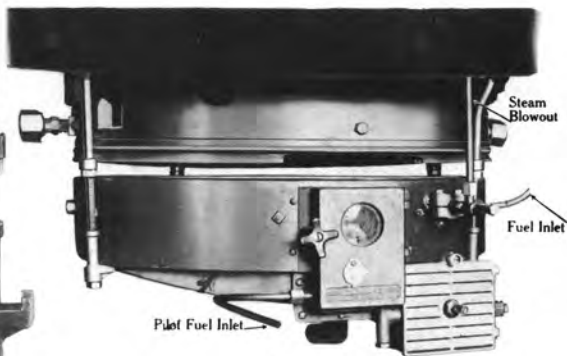


Fig 2



Fig 3

See Photo No. 5

EMPIRE OIL BURNER

Patents Pending - Charles R. Uebelmesser - Inventor

Photo No. 2

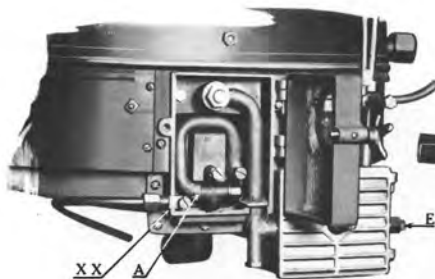


Fig 4



7/16
11/16

Screw
Driver

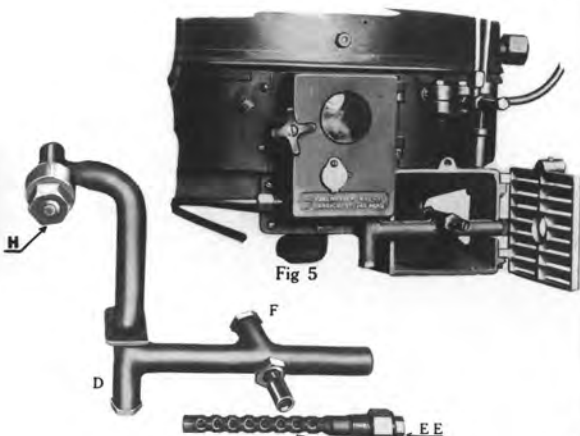


Fig 5

Fig 6

EMPIRE OIL BURNER

Photo No. 3

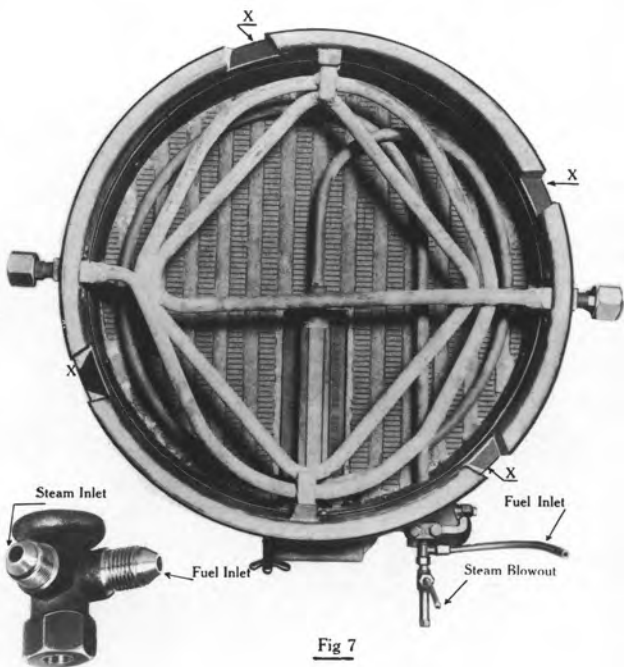


Fig 7 A

EMPIRE OIL BURNER

Photo No. 4



Fig 8



Fig 8 A

EMPIRE OIL BURNER

Photo No. 5

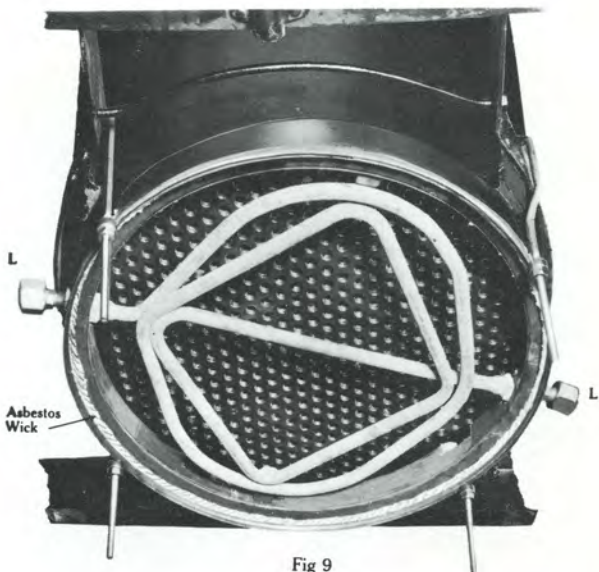
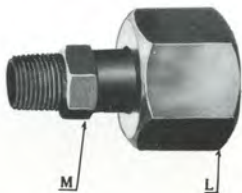


Fig 9



EMPIRE OIL BURNER

Photo No. 6

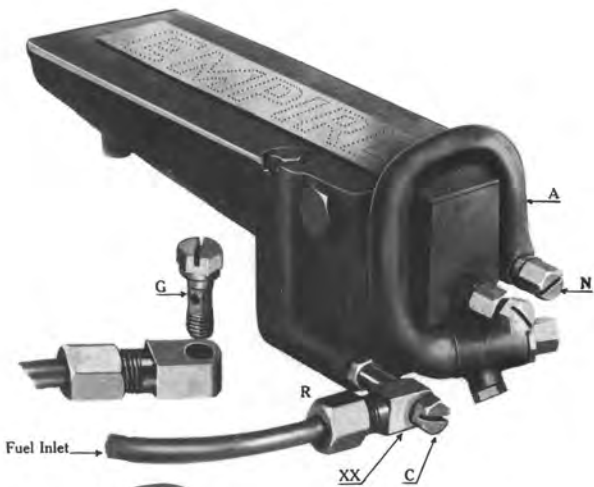
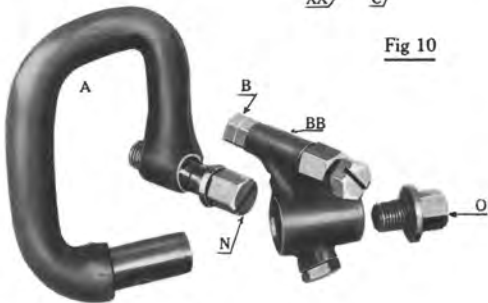


Fig 10

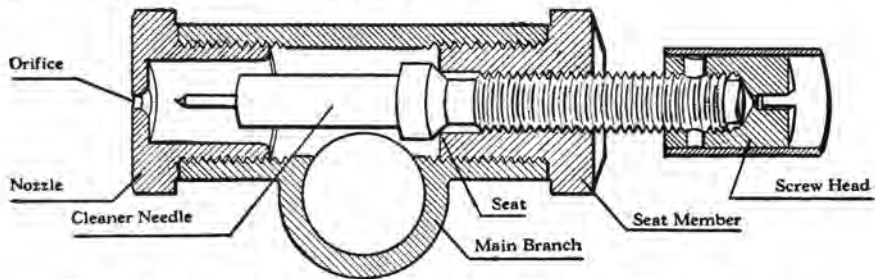


EMPIRE KEROSENE PILOT
Patents Pending-Charles R. Uebelmesser-Inventor

EMPIRE OIL BURNER

Patents Pending

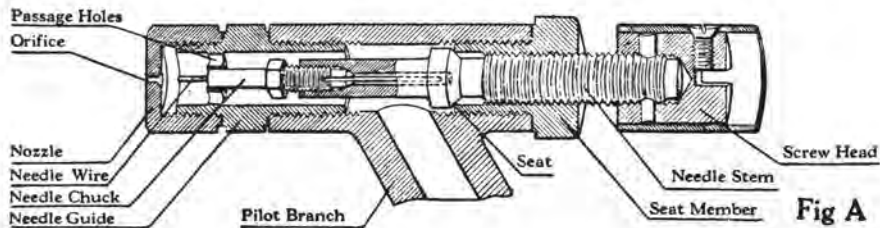
The Empire Oil Burner, illustrated on opposite side, is made in two sections. The Adapter Ring that supports the Empire Permanent Superheater is permanently attached to the boiler and the Empire Main Burner with kerosene pilot is attached to the Adapter ring as illustrated. The Adapter Ring has an Asbestos Ring Gasket against which the main burner rests. The Burner can be attached and detached without the necessity of using asbestos paper or cement. The illustrations and the explanation covering these illustrations are all the data necessary for installation and maintenance. The Empire Burner is completely machine finished and all riveting and asbestos plastering has been eliminated. The Empire Permanent Superheater does not sag—the entire superheater is in the fire, where it should be. It is 100% efficient and is guaranteed for 15,000 to 20,000 miles. The Main Burner has only one main nozzle; it will not back fire; it is absolutely encased; will maintain steam at high speeds and has perfect combustion. All parts are standard and the burner is indestructible.



CROSS SECTION THROUGH "EMPIRE" MAIN NOZZLE—Pat. Pend.

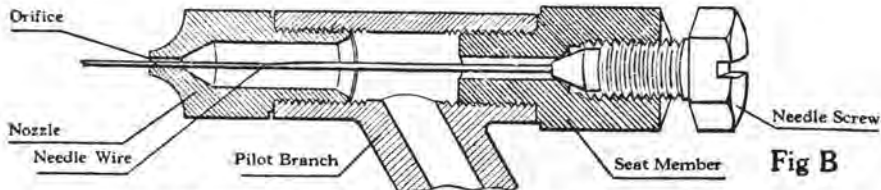
DIRECTION: For cleaning Main Nozzle turn Screw Head to the right as far as possible without forcing, then screw back to the left immediately until seat closes tight. The Main Nozzle is easily taken apart. All Hexagons fit our standard socket wrench furnished with every firebottom. In assembling use graphite grease for all threads.

The Empire Kerosene Pilot which is a part of the Burner, is fully described on Photo No. 6, and can be furnished with a Branch and Nozzle, as shown in Fig. A., in which there is no needle in the nozzle, or can be furnished with a nozzle as shown in Fig. B., in which we furnish the regular standard nozzle and needle as used in the standard gasoline pilot. In ordering state which type of nozzle and needle is required. (We recommend Fig. A.) The nozzle in the Pilot is permanent and does not have to be renewed. The Pilot Vaporizer can be renewed without removing Pilot from the Main Burner. The Empire Oil Burner and Pilot needs only one fuel and will burn kerosene, gasoline or fuel oil or a mixture of these.



CROSS SECTION THROUGH "EMPIRE PILOT" NOZZLE—Pat. Pend.

DIRECTION: For cleaning pilot Nozzle turn screw head to the right as far in as possible without forcing, then screw back to the left immediately until seat closes tight. Repeat operation until pilot burns clearly and the flames lift slightly away from the casting. The whole Nozzle is easily taken apart. See that the passage holes in Needle Guide, is clear. In assembling be careful that needle wire is not damaged. The needle made out of tungsten wire must extend not more than $\frac{1}{8}$ -inch out of the Chuck. In case wire breaks, open chuck and push wire out to necessary length. For all threads use graphite grease.



CROSS SECTION THROUGH "EMPIRE" PILOT NOZZLE

Instead of our standard equipment with round nozzle orifice this old type nozzle may be furnished which fits without any change in the Pilot Branch. The needle wire measures .036 of an inch and has to be filed flat to .026 of an inch.

The refilling of the Pilot Tank is eliminated as only one fuel is necessary for both the Pilot and the Main Burner. The Pilot Tank is filled from the Main Tank while driving. This overcomes the great nuisance existing heretofore in filling the Pilot Tank daily and dissipating the air supply in the reserve air tank.

Burner complete with Adapter Ring, Superheater, Kerosene Pilot and Four Stay Bolts, \$200.00,
Sold by

CRUBAN MACHINE & STEEL CORP.
60 Varick Street, New York City, N. Y.

Fig. 1.—Illustrates the Empire Burner completely assembled and attached to bottom of Boiler.

Fig. 2.—Illustrates the Adapter Ring permanently fastened to bottom of Boiler, and the Empire Burner slightly detached.

Fig. 3.—Illustrates one of the four Stay Bolts that hold the Adapter Ring and Burner in place. (Collar "A" and nut "B" hold Adapter Ring in place). The notch in Collar "A" fits over the edge of Adapter Ring. Pronged Casting "C" and Nut "D" fasten Empire Burner permanently into Adapter Ring, making a perfectly sealed joint, without the aid of asbestos paper or cement.

Fig. 4.—Illustrates Empire Burner with Pilot Door open exposing the Pilot Vaporizer "A", Pilot Nozzle "B" (on Photo No. 6) Pilot Fuel Inlet Screw "C", Main Burner Branch "D", Main Burner Branch Screen Cage "E" and Screen Cage Cleanout Screw "EE".

To remove Pilot, take out screw "C" and pull fitting XX with copper pipe away from connection. Then complete pilot can be removed by lifting pilot slightly upward. The 7/16 socket wrench fits all screws and the 11/16 socket wrench fits Screen Cage "E".

Fig. 5.—Illustrates Empire Burner with Main Burner Door open, exposing Main Burner Single Nozzle and Air Intake Tube. (Note the bottom Casting with Mixing Tube is machine finished and fastens to the Burner Casting which is also machine finished).

Fig. 6.—Illustrates Main Branch "D", Screen Cage "E". Screen Cage Cleanout Screw "EE". Nozzle F; to clean Nozzle F, use long screw driver to screw in Nozzle Cleaner Needle and screw back so that it seats. This operation will force out any Carbon that might collect in Burner Nozzle. (See Cross Section shown above). The Main Burner Branch need never be removed from Vaporizer to clean, but if removal is necessary, loosen nut "H" with header nut wrench.

Fig. 7.—Illustrates top view of Empire Burner with Adapter Ring, showing Special Empire Permanent Superheater. (Note after fastening Adapter Ring to Boiler, as shown on Photo No. 1 use high temperature Cement and seal Adapter Ring from inside, to boiler and fill spaces "X" to make air tight, never remove the ring unless it is necessary to take out Boiler.

Fig. 7.—Illustrates Bronze Fitting for Fuel Inlet and Steam Blow Out Inlet, also Tapped Hole for Cable End Fitting.

Fig. 8.—Illustrates Empire Main Burner only, showing Permanent Main Vaporizer, also the three Indestructible Fire Hooks "J" that positively support the vaporizer. Also shows the Empire Vaporizer Clamp "K" that can be used on all types of vaporizers.

Fig. 8A.—Illustrates enlarged view of Empire Vaporizer Clamp.

Fig. 9.—Illustrates Bottom of Boiler, with adapter Ring attached by Stay Bolts (Fig. 3, Photo No. 1); also shows Empire Permanent Superheater in place and asbestos wick against which the Empire Main Burner is fastened making a sealed joint. To remove superheater, loosen nuts "L", that are fastened to steam loop and Steam Inlet Pipe, then screw out fitting "M" from both ends of superheater, next remove Cotter Pins from superheater, then push superheater backward, down, forward and out.

Fig. 10.—Illustrates Empire Kerosene Pilot. "A" is the vaporizer and can be removed by taking out screw "N". Pilot Nozzle "B" can be removed from Branch with 7/16 inch socket wrench. Pilot Branch "BB" can be removed from the vaporizer by taking out Screw "O". To clean Pilot Nozzle "B", use the long screw driver to screw in Tungsten Needle Nozzle Cleaner, then screw back so that it seats. This operation will force out any carbon that might collect in pilot nozzle. (See cross section shown above).

To light Pilot, heat Vaporizer with Torch, or open Pilot Fuel Valve for an instant only and let some fuel in small trough under Vaporizer, ignite Fuel and when Vaporizer is hot, open up Fuel Valve. Pilot should burn until Pilot Vaporizer is red, then Main Burner can be turned on full and the Burner will function.

To take out Pilot—shut off Fuel, take out Screw "C" pull fitting "XX" (with copper pipe) off the Pilot Inlet Tube "R" and lift Pilot slightly when taking out.

Newark, N. J., September 17, 1924

Cruban Machine and Steel Corporation,
New York City, N. Y.

Gentlemen:—

I want to tell you how very much pleased I am with my new "Cruban Boiler." I have just returned from a long hard trip all through the mountains and while I have driven Stanley Steam Cars for a great many years, I have never before had a boiler that gave me the steam that this "Cruban" gives me. I could carry fully six hundred pounds and maintain practically any speed, even on some of the longest mountain grades.

I also want to say a word in regards to your guarantee, and the manner in which you back it up. It is a pleasure to know you are dealing with such a concern, and your policy of "making good" should win and hold you many customers as we all appreciate fair dealing; and I can say truthfully, no one could be fairer than you were with me.

I hope I can send you plenty of business, and I have spoken to any number of Stanley owners. Wishing you all the success you deserve, I beg to remain,

Very truly yours,
E. P. VAN EPPS,

Cruban Machine and Steel Corporation,
New York City

Chicago, August 7, 1924

My dear Mr. Uebelmesser:

Gentlemen:—

Back at home and we have you and your capable men to thank for the fine work done on the Stanley Steamer while in New York to get us to our destination—home.

The details that were carefully looked over were indeed the very attention the car needed as well as the more visible repairs. Leaving the Cruban Work Shop I felt indeed the knowledge I gained was for my future faith in the Steamer. It is a person like you, Mr. Uebelmesser, who give those of us who seemed to have lost faith in the Steamer—a sort of new outlook.

Dad insists that I do and get all parts needed from the Cruban Company. He has forbidden me to take the car to the Stanley Service people here. That sounds as if I am to become a mechanic of the Faulhaber household—it will be at such times that I shall wish that the Cruban shop were here in Chicago.

Many thanks for the very kind attention you gave us as well as the faithful work done by your men.

Kindest regards to Mr. Beckwith. Tell him I saw his fine letter on the cards he wrote for you. Good service prompts us to say fine things.

Very sincerely,

MARGARET FAULHABER.

1937 So. Troy St., Chicago

Cruban Machine & Tool Works,
Cruban Machine and Steel Corporation,
60 Varick Street, New York City

Dear Sirs:—

I have had your new burner in constant use on my 1920 model Stanley for about a month and have found that it gives greater reliability of operation than the standard type.

Carbon does not collect as rapidly as in my former burner and the pilot light in particular seems to remain free of carbon deposit for a very long time. When cleaning or attention is required, the greater accessibility of the pilot and ease of removal of the main burner are a most important improvement.

Since there is but one nozzle in the main burner, the opening is larger and is therefore much less likely to become stopped by carbon particles, while the troublesome back firing caused by one nozzle becoming stopped is entirely avoided.

Aside from the advantage that the pilot can be used with kerosene, I consider the pilot light construction to be a most important improvement in every way over the former pilot and that the ingenious plan by which the burner is adapted without change to cars having the gasoline pilot is most excellent.

I think that I now have on my car all of the improvements that you have put on the market so far and I am glad to say that they have been most satisfactory and successful.

Your very truly,

EDWARD P. BECKWITH.

DAILY ★ STAR

Long Island City, N. Y., August 25, 1924.

Cruban Machine and Steel Corporation,
60 Varick Street, New York City

Gentlemen:—

Prior to the time when you installed a new fire bottom in my Stanley, a day's driving meant a day's work, due to the constant backfiring of the main burner.

Since the day I drove away from your shop with the new fire bottom, your new foot accelerator and Cruban Automatic Water Level Regulator, the performance of the car has been amazing. They make the car reliable and give one confidence that it will respond to any emergency.

A few more improvements like these and I am sure the Steam Car will come into its own.

Very truly yours,

JOSEPH E. GREENIDGE, Reporter

