

United States Patent [19]

Kreider et al.

[11] **3,847,539**

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[54] **DRIVING MECHANISM FOR VACUUM
ELECTRIC FURNACES**

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[57] **ABSTRACT**

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[51] Int. Cl. **F27b 9/14**, F27b 11/08

furnace, the mechanism extending through the furnace wall for motor or manual driving from the exterior of the furnace, the mechanism being replaceable as a unit, having provisions for sealing against fluid leakage and for reduction of heat conductivity be

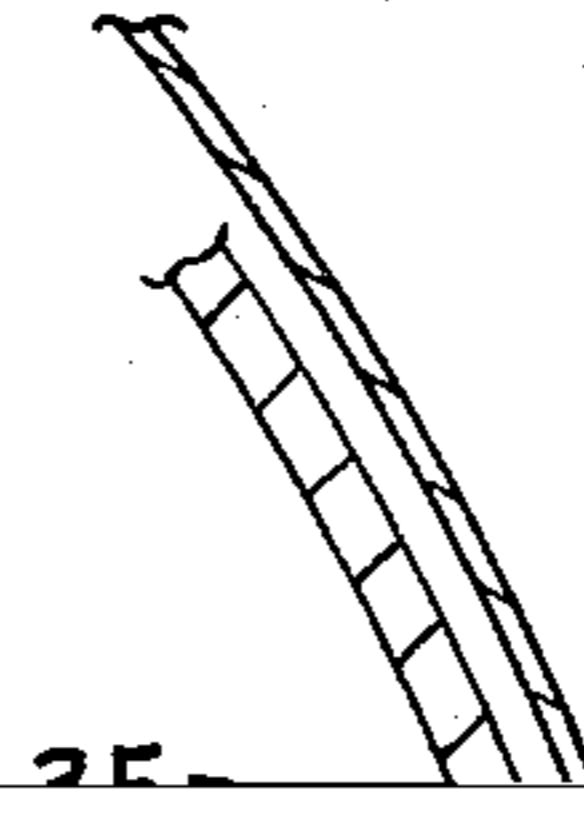
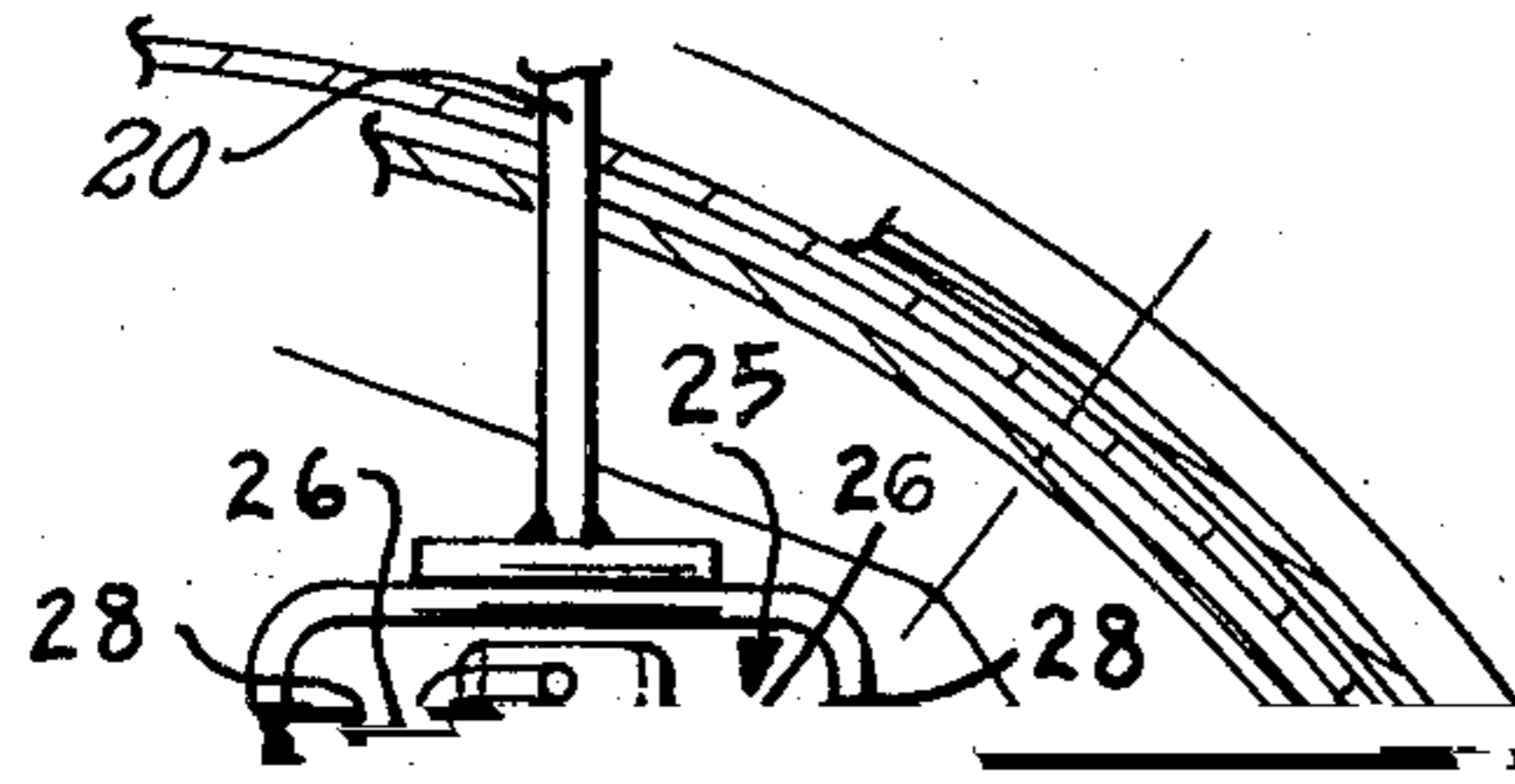


Fig. 1.

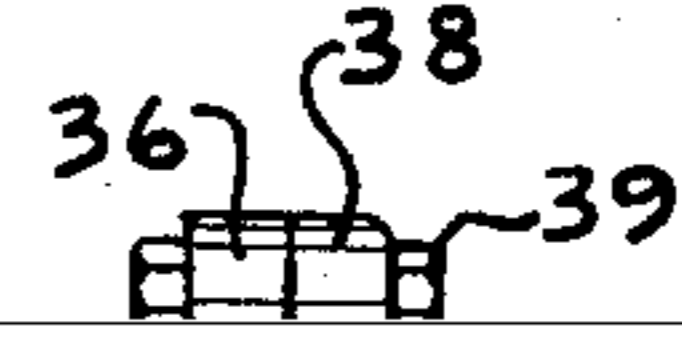
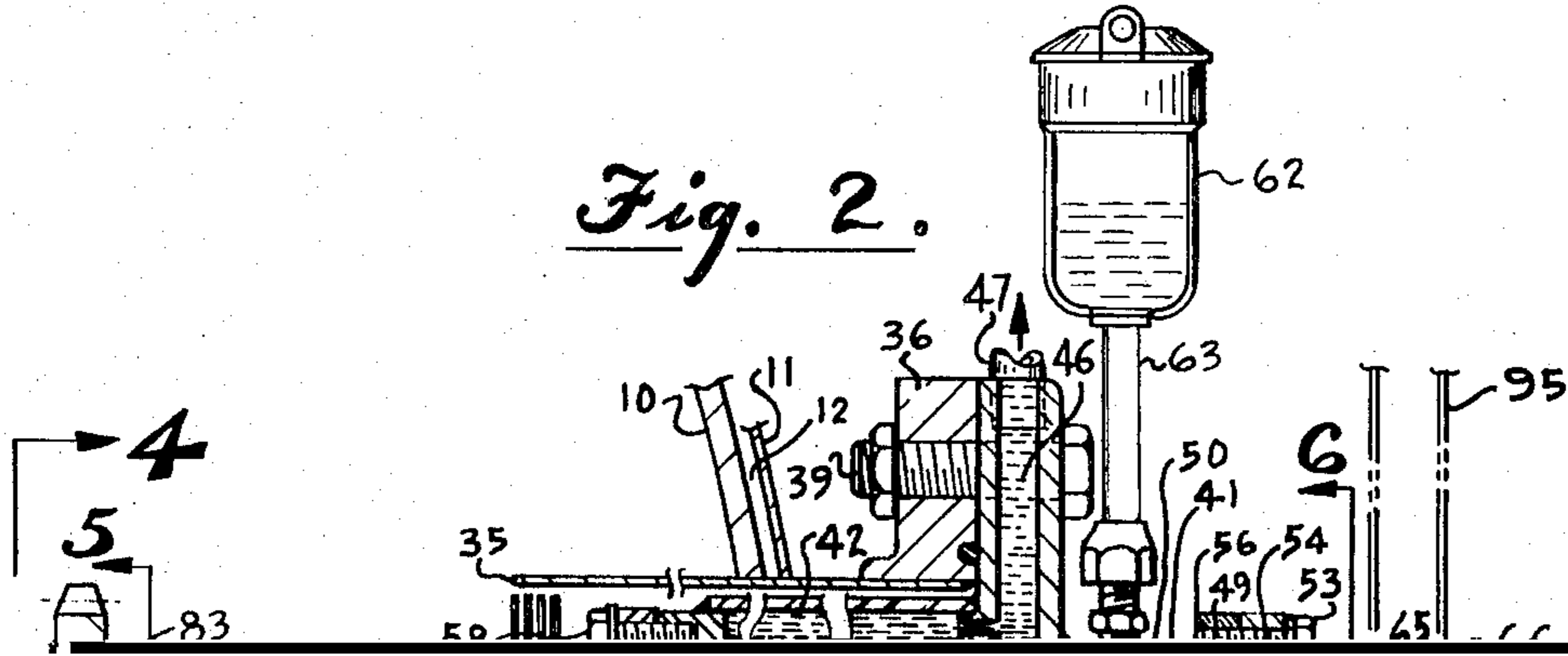


Fig. 2.



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**DRIVING MECHANISM FOR VACUUM ELECTRIC
FURNACES**

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vancing work pieces through a vacuum electric fur-
nace.

The rods 27 between the frame bars 26 have rollers 30 which rollers 30 and their supporting rods 27 can be spaced at any desired locations but are preferably spaced to function as a rack for engagement by the teeth of a driving sprocket 33.

The carriers 25, at spaced locations, and preferably at their connections with other aligned carriers 25 can

The shaft 50 is preferably of a material, such as carbon steel, having good heat conductive properties to aid in cooling.

The shaft 50 has a hollow tubular shaft extension 75 connected thereto by an interposed connector 76, welded to the shaft 50 and shaft extension 75 by vacuum tight welds.

pieces. The rails 22, and their supports, and the carriers 25 can be of any desired type but advantageously are of stainless steel, but is preferably of a material, such as stainless steel, having relatively good heat conducting properties.

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ever limited to slow speed rotation and could operate at 2,500 r.p.m. and higher, if desired.
Heat transfer from the furnace interior is inhibited by

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said extension portion is of a material of lesser heat conductivity than the portion of said shaft contiguous to the vessel wall.

The shaft bearings 40 are lubricated and seal 41

said shaft has an extension 42 at its upper end

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

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Metaleky