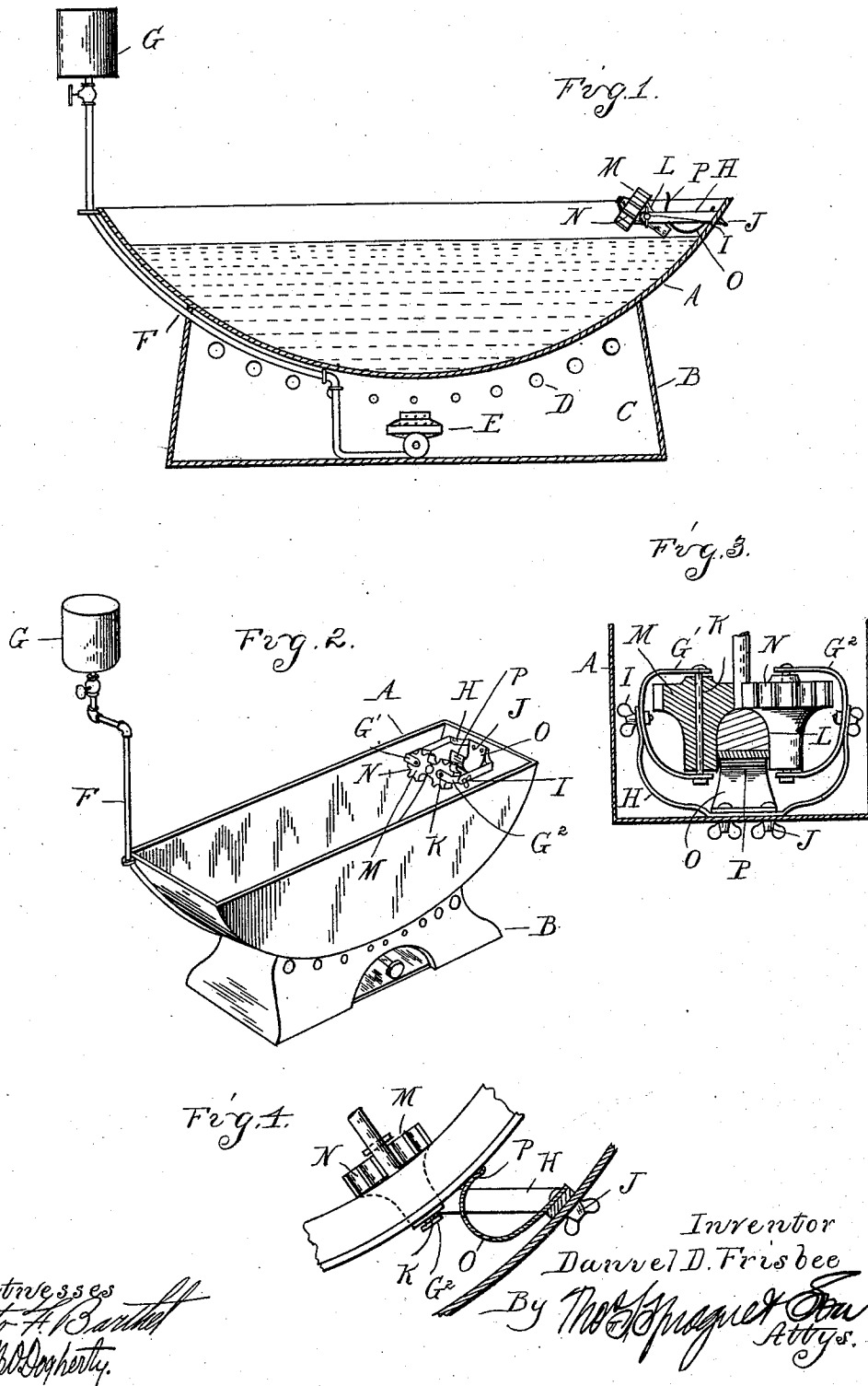


(No Model.)

D. D. FRISBEE.
TIRE SETTER.

No. 567,462.

Patented Sept. 8, 1896.



UNITED STATES PATENT OFFICE.

DANIEL D. FRISBEE, OF DETROIT, MICHIGAN.

TIRE-SETTER.

SPECIFICATION forming part of Letters Patent No. 567,462, dated September 8, 1896.

Application filed June 13, 1896. Serial No. 595,405. (No model.)

To all whom it may concern:

Be it known that I, DANIEL D. FRISBEE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Tire-Setters, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to a tire-setting device intended for saturating fellys in heated linseed-oil or similar material.

The invention comprises a tank of substantially segmental form, having a heating-chamber beneath, a vapor-burner in the heating-chamber to which the liquid to be vaporized is supplied from an elevated tank, and in the construction of a wiper for removing from the rim or felly and a part of the spokes all superfluous oil, so as to prevent the oil from running down the spokes as the wheel is rotated, thus confining it to the parts which are intended to be affected.

The invention further consists in the construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

In the drawings, Figure 1 is a vertical central section through the tank, showing the wiper in elevation. Fig. 2 is a perspective view of my improved device. Fig. 3 is a horizontal section through the wiper, and Fig. 4 is a vertical central section through the same.

A is a segmental tank supported on the hollow base B, within which is formed a heating-chamber C, having a series of exhaust-apertures D along the sides beneath the bottom of the tank A. In this base is a vapor-burner E, which is connected by the pipe F to the elevated supply-tank G, containing the liquid fuel. The tank A is intended to hold the desired quantity of the linseed-oil or other similar material in which the wheel may be rotated. I deem it of especial importance to use the vapor-burner in this connection, as it dispenses with all smoke, and also I think it desirable to have the segmental series of apertures D around the bottom of the tank A through the sides of the combustion-chamber, so as to make a more even distribution of the heat. To better effect this purpose, I preferably make these apertures gradually enlarg-

ing from the middle outward, which I find gives a very much better distribution of the heat than with apertures of the same size. If the heat is not distributed pretty evenly over the bottom, the oil directly over the burner is apt to burn and thus destroy the effect desired of boiling the oil without burning it. Hence this distribution of the heat evenly is of considerable importance. The wheel, being set in the tank and supported so that it will be free to rotate, may be turned around so as to bring all parts of the felly into the oil. As the wheel is rotated, if no wiper were used, the oil sticking to the felly and the parts of the spokes submerged would be apt to run down (as the spokes assume their vertical position) upon the spokes and the hub, thus requiring work to clean them after they had been thus treated. To obviate this difficulty, I arrange a wiper of the following construction: G' and G² are two yokes which are connected to the spring-arms H by means of the clamping-screws I, the arms H preferably being formed from a single piece centrally secured to the end of the tank A by means of the clamping-bolts J. In the open ends of the yokes G' G², journaled on the pins K, are wiper-rollers. These wiper-rollers are preferably of rubber, felt, or other suitable material, and comprise the felly portion L, adapted to bear against the side and inner face of the felly, and the spoke portion M, having notches N, adapted to engage over the rounded faces of the spokes for the purpose more fully hereinafter set forth.

In putting the wheel into the tank the wiper-rollers are separated sufficiently to permit the felly to pass between and then released, when the spring-arms H will force the rollers in contact with the felly, as plainly shown in Fig. 3.

O is a spring-plate, preferably having the curved upper end P and preferably secured by the set-screws J at the end of the tank. The curved portion P of this plate is adapted to bear against the face of the tire to wipe from that face the surplus fluid.

The parts being thus constructed, their operation is as follows: The wheel being arranged as described and rotated, in the movement of the felly the rollers will be held against the side and inner face by the spring-

pressure and effectually wipe off therefrom
back into the tank any surplus oil carried
thereby which might run down upon the
spoke, while the spoke portion M of the roll-
5 ers will engage with the spokes and take off a
large part, if not all, of the fluid which may
be thereon and which would naturally run
down to a point at or near the felly. At the
same time such oil as might be on the face of
10 the tire would be wiped off by the plate O.
I presume that with rough wagons or un-
painted wagons the wipers will not be abso-
lutely necessary, but with the better class of
rigs it is desirable.

15 It is well understood among users of vehi-
cles that if the felly is well soaked with oil
after the tire is once properly set the wood
will not shrink. Hence it will prevent the
necessity of having the tires reset.

20 What I claim is—

1. The combination with a tank A, of
spring-supported wiper-rollers at one end
thereof, having bearing-faces of a shape
adapted to contact the sides and inner face
25 of the fellies, substantially as described.

2. In a device of the kind described, the

combination with a tank of spring wiper-roll-
ers supported at one end of the tank said
rollers having the felly portions L and the
notched spoke portions M for the purpose de- 30
scribed.

3. In a device of the kind described, the
combination of the tank A, the spring-arms
at one end thereof, the yokes G' G² having a
pivotal adjustment on the ends of said arms, 35
clamping-screws for holding them in their ad-
justed position and rollers pivoted in said
yokes, said rollers having the portions L and
N, substantially as described.

4. In a tire-setting apparatus, the combi- 40
nation with a tank, of yieldingly-supported
wiper-rollers at one end of the tank each of a
shape to contact with one side and a portion
of the inner face of the felly, and a wiper for
the face of the tire. 45

In testimony whereof I affix my signature
in presence of two witnesses.

DANIEL D. FRISBEE.

Witnesses:

M. B. O'DOHERTY,
OTTO F. BARTHEL.