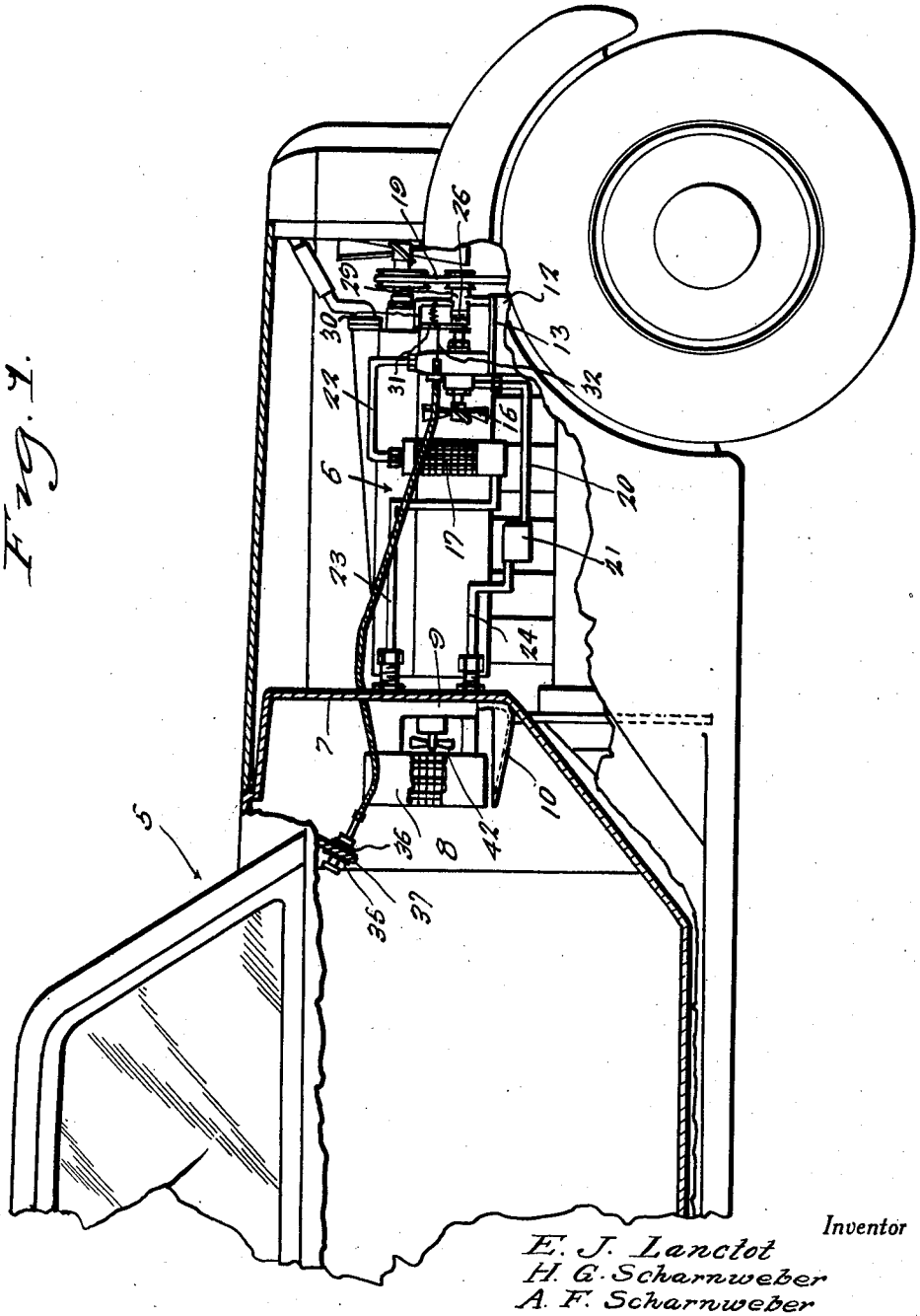
Aug. 3, 1937. E. J. LANCTOT ET AL 2,088,753

AIR COOLING APPARATUS

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Fig. 1.



Inventor

E. J. Lanctot
H. G. Scharnweber
A. F. Scharnweber

By Clarence A. O'Brien
Hyman Berman

Attorneys

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Fig. 3

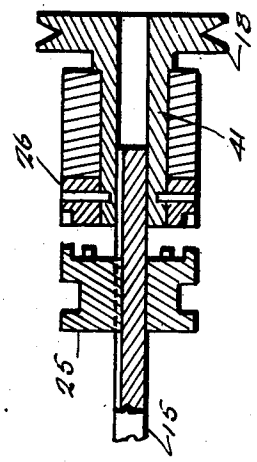


Fig. 4

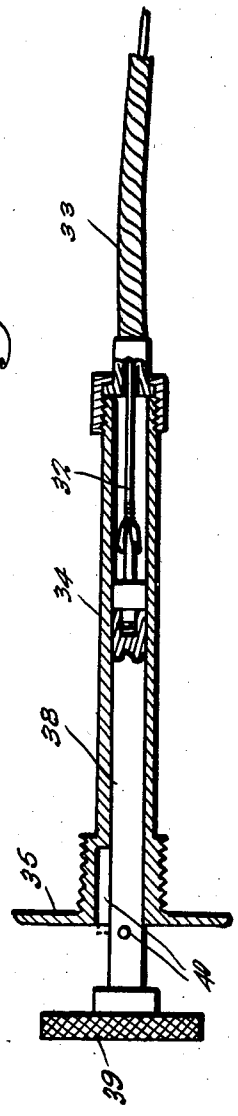
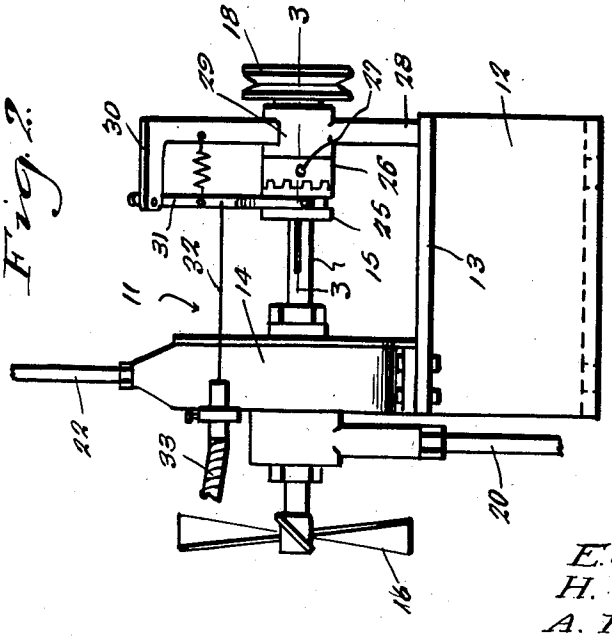


Fig. 2



Inventor

E. J. Lanctot
H. G. Scharnweber
A. F. Scharnweber

By Clarence A. O'Brien
Hyman Berman

Attorneys

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UNITED STATES PATENT OFFICE

2,088,753

AIR COOLING APPARATUS

Elmer J. Lanctot, Henry G. Scharnweber, and Anson F. Scharnweber, Mitchell, S. Dak.

Application March 5, 1937, Serial No. 129,276

1 Claim. (Cl. 62—117)

This invention appertains to new and useful improvements in air cooling apparatus and more particularly to apparatus of this type especially adapted for use in automobiles.

The principal object of the present invention is to provide a cooling system especially adapted for automobiles of the passenger or truck type wherein the usual compressor is driven by the engine of the vehicle.

Another important object of the invention is to provide a cooling system of the character stated which will be of simple construction and not apt to readily become disrupted in service.

These and various other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:—

Figure 1 represents an enlarged side elevational view of the forward portion of an automobile with parts in section to disclose the installation of the cooling system.

Figure 2 is a side elevational view of the compressor drive means assembly.

Figure 3 is a fragmentary longitudinal sectional view taken substantially on the line 3—3 of Figure 2.

Figure 4 is a longitudinal sectional view through the control means for the clutch.

Referring to the drawings wherein like numerals designate like parts, it can be seen in Figure 1, that numeral 5 generally refers to a conventional automobile of which the engine is denoted by numeral 6.

The cowl or dash wall is denoted by numeral 7 and to this is secured the freezer unit 8 in association with the inter-engaging means 9. Numeral 10 represents a catch pan disposed under the freezer 8 for catching any drops of liquid falling therefrom especially when defrosting.

The compressor assembly generally referred to by numeral 11 consists of the bracket structure 12 which includes the outstanding flange 13 upon which the compressor 14 is secured. The compressor shaft is denoted by numeral 15 and extends through the compressor, being equipped at one end with the fan 16 for cooling the condenser 17 and at its opposite end with the pulley 18 which is engaged by the usual fan belt 19 of the engine. (See Figure 1.) Numeral 20 denotes the suction line between the filter trap 21 and the compressor 14 while numeral 22 denotes the pipe line from the compressor to the condenser 17. The pipe lines 23—24 extend from the trap 21 and condenser 17 to the freezing unit 8.

A toothed clutch collar 25 is splined to the shaft 15 and is engageable with the toothed collar 26 which is secured by a pin or other means 27 to the shaft 15. A post 28 supports the bearing 29 through which the shaft 15 extends and the upper end of this post 28 has the arm 30 to which the upper end of the yoke 31 is pivotally secured, the yoke being engaged with the splined collar 25 and has connected thereto the forward end of the cable 32 which extends through the flexible conduit 33 and into the barrel 34 which is secured by the flange 35 and nut 36 to the instrument board 37. A rod 38 extends into the barrel and is provided with the hand knob 39 at its outer end. A pin and bayonet slot 40 is provided between the rod 38 and barrel 34 so that the cable or control wire 32 can be held in either operated or inoperative position.

As is clearly shown in Figure 3, the shaft 15 is freely rotatable in the tubular stub shaft extension 41 of the pulley 18 and by shifting the cable 32, the collar 25 can be brought into toothed engagement with the collar 26 so that the pulley 18 is connected in driving relation with the shaft 15 so that the compressor 14 is operated.

As is clearly shown in Figure 1, a fan 42 situated forwardly of the unit 8 serves to force the cold air rearwardly in the passenger compartment of the vehicle.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention what is claimed as new is:—

In combination with an automobile having a movable part, a cooling system including a freezing unit, a condenser and compressor connected up in circuit with the freezing unit, a drive for the compressor, said compressor including a shaft extending through the same and having a fan at one end, said condenser being located in close proximity with the said fan, a driven element connected with the moving part of the engine and provided with a tubular stub shaft receiving the remaining end of the compressor shaft, a clutch collar fixed to the stub shaft, a splined clutch collar on the compressor shaft engageable with the stub shaft clutch collar, and remote control means for sliding the splined collar into and out of engagement with the stub shaft collar.

ELMER J. LANCTOT.
HENRY G. SCHARNWEBER.
ANSON F. SCHARNWEBER.