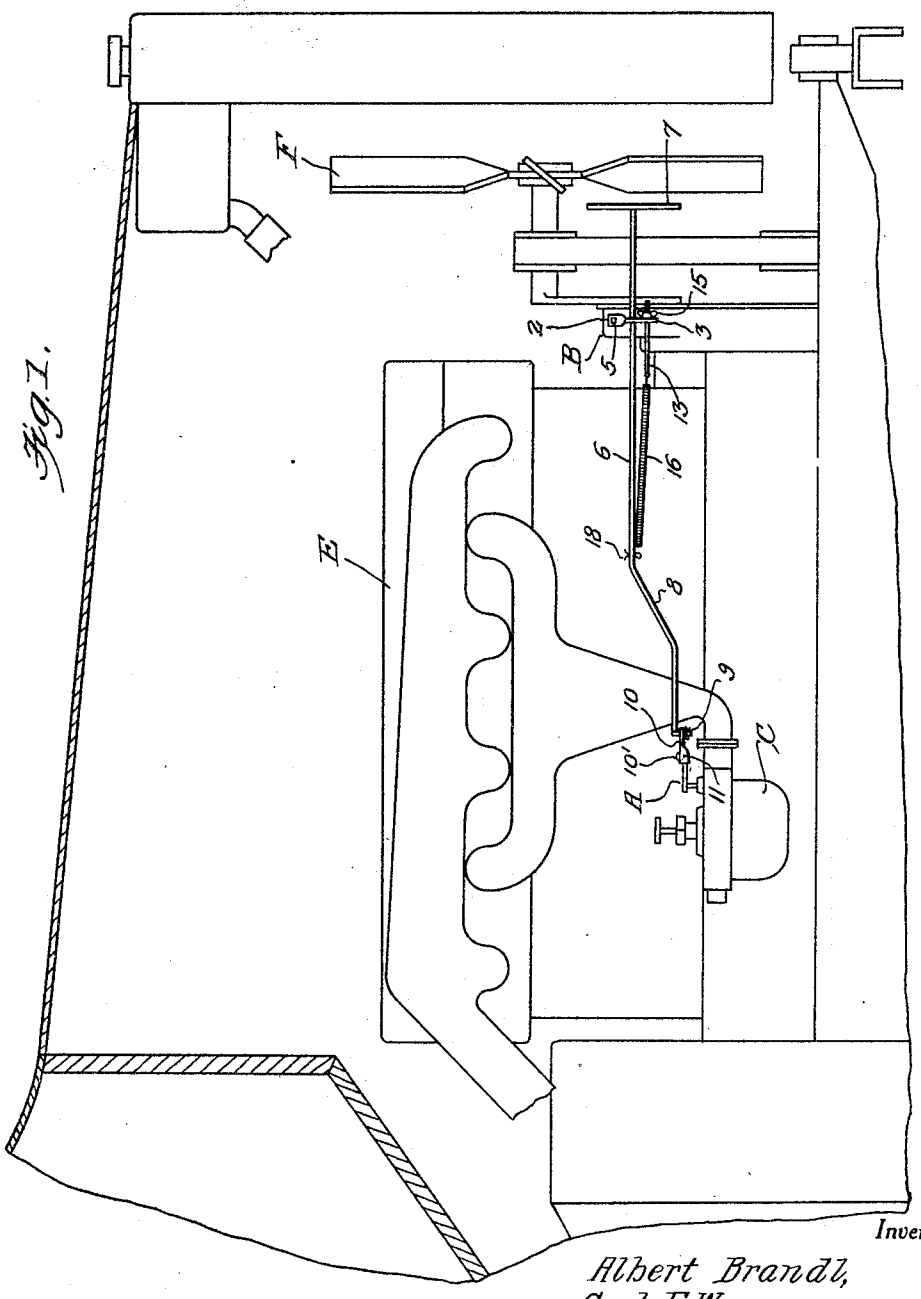
Sept. 8, 1931. A. BRANDL ET AL 1,822,473

ENGINE GOVERNOR

Filed May 28, 1930 2 Sheets-Sheet 1

Fig. 1.



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ENGINE GOVERNOR

Filed May 28, 1930 2 Sheets-Sheet 2

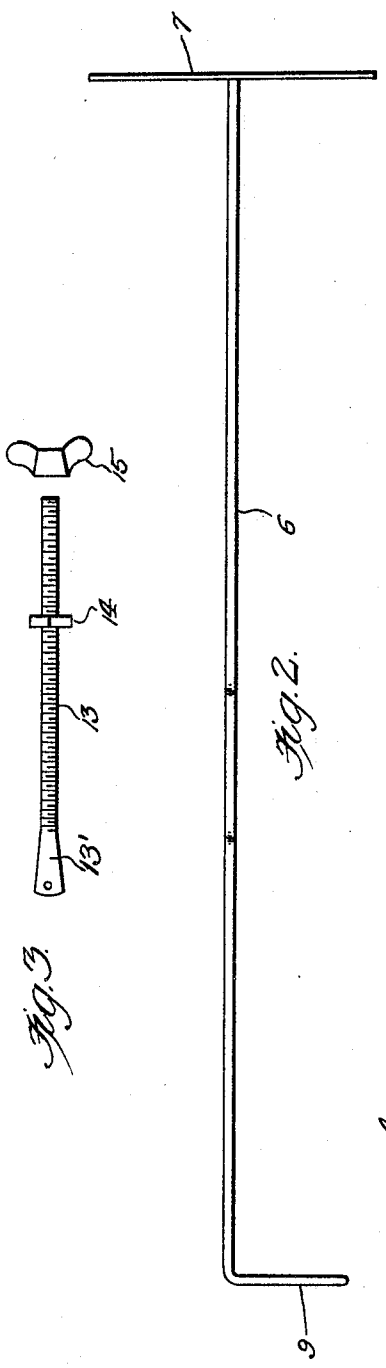


Fig. 2.

Fig. 3.

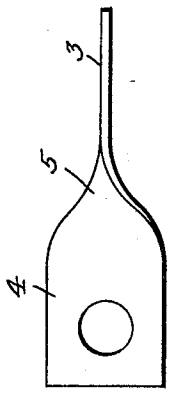


Fig. 4.

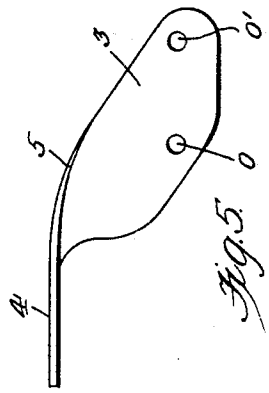


Fig. 5.

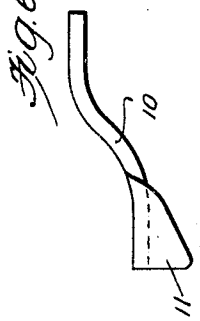


Fig. 6.

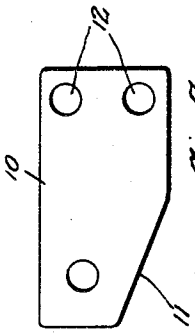


Fig. 7.

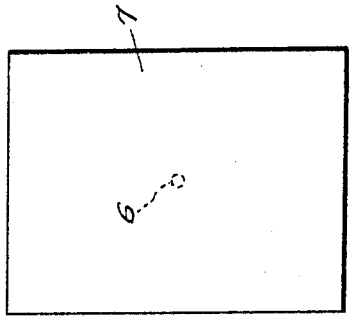


Fig. 8.

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UNITED STATES PATENT OFFICE

ALBERT BRANDL AND CARL F. WEGNER, OF WAUSA, NEBRASKA

ENGINE GOVERNOR

Application filed May 28, 1930. Serial No. 456,750.

This invention relates broadly to a governor for controlling the speed of an internal combustion engine, and has more particular reference to a governor especially adapted for use with Ford engines, and tractors.

The present invention involves certain new and useful improvements on that type of engine governor embodied in a patent to Brandl et al., No. 1,744,080, Aug. 26, 1930.

A primary object of this invention is to provide an engine governor which is comparatively simple in construction, consists of but comparatively few parts, is thoroughly reliable, practical and efficient in operation and may be easily operatively associated with the conventional type of internal combustion engine.

Other objects and advantages of the invention will become apparent during a study of the following description taken in connection with the accompanying drawings wherein:

Figure 1 is a side elevational view of our improved device, the same being shown as applied to a conventional type of Ford internal combustion engine,

Figure 2 is a side elevational view of the control rod,

Figure 3 is a similar view of the spring anchoring bolt showing the wing nut separated therefrom,

Figure 4 is a plan view of a guide bracket,

Figure 5 is a side elevational view thereof,

Figure 6 is a side elevational view of a connecting member for operatively connecting the control rod to the crank arm of the carbureter throttle valve,

Figure 7 is a top plan view thereof,

Figure 8 is an end elevational view of the control rod at that end of the rod to which the air control plate is secured.

With reference more in detail to the drawings it will be seen that we have designated a conventional type of internal combustion engine by the reference character E, the same being shown mounted in the hood structure of a well known type of automobile. F designates the cooling fan. The carbureter of the internal combustion engine is designated generally by the reference character C and the crank arm of the throttle valve of the carbureter is designated by the reference character A.

Our invention consists in the provision of means operated by the air current created upon rotation of the fan F for actuating the throttle valve to automatically control the speed of the internal combustion engine. With this in view, the invention consists in the provision of a guide bracket 5 formed from a single blank of metal or suitable metal twisted longitudinally and embodying an attaching portion 4 bolted or otherwise suitably secured to the fan bracket B as at 2. The free end portion 3 is slidable through one opening of a control rod 6 of suitable length. The rod 6 has secured to that end thereof adjacent the fan F a substantially rectangular plate 7. At its opposite end the control rod 6 terminates in a depending extension 9.

An angular shaped connecting member or plate 10 has one end portion adapted to be bolted or otherwise suitably secured as at 10′ to the free end of the crank arm A of the throttle valve of the carbureter. At said one end, and on one side thereof said plate 10 is bent downwardly as at 11 to provide an ear adapted to engage one side of the crank arm to prevent rotation of the plate or connector member 10.

At its opposite or free end the plate or connecting member 10 is provided with a pair of holes or openings 12. The end extension 9 may be received in a selected opening 12 thus operatively connecting the control rod 6 with the throttle valve of the carbureter.

Normally urging the control rod 6 in one direction so as to maintain the plate 7 adjacent the fan F and the throttle valve in an opened position is a suitable coil spring 16 which is connected at one end to the control rod 6 as at 18. A cotter pin or the like may be utilized for so securing said one end of the spring to the control rod 6.

The opposite end of the spring 16 is anchored to the flattened apertured end 13′ of an anchoring bolt 13. The other end of the bolt 13 is passed through the opening o′ (Figure 5) in the end portion 3 of the guide

bracket 5 and is suitably clamped to the bracket 5 through the medium of a lock nut 14 threaded on the bolt and bearing against one side of the bracket and a wing nut 13 threaded on the free end of the bolt and bearing against the opposite side of the bracket.

From the foregoing it is apparent that while the motor is turning over, the rotation of the fan will set up suitable air current striking against the plate 7 urging the control bar 6 rearwardly for closing, or partially closing the throttle valve of the carbureter thus reducing the speed of the engine.

As the speed of the engine decreases, the spring 16 will urge the bar 6 in an opposite direction thus maintaining the plate 7 in suitable proximity to the fan F.

It is thought that from the foregoing description, taken in connection with the accompanying drawings a clear understanding of the operation, construction, utility and advantages of an invention of this character will be had by those skilled in the art without a more detailed description.

Even though we have herein shown and described the preferred embodiment of our invention, it is to be understood that the same is susceptible to changes fully comprehended by the spirit of the invention as herein described, and the scope of the appended claims.

Having thus described our invention, what we claim as new is:

1. An engine governor including in combination with the carbureter of an internal combustion engine, a control rod constrained to slide in a horizontal plane, said rod at one end being offset and at said offset end being provided with a downwardly depending extension, and a plate adapted to be secured to the crank handle of the throttle valve of the carbureter, and at one end provided with an aperture for accommodating said depending extension, said plate at its free end having a portion thereof bent downwardly to provide an ear contacting laterally with said crank arm.

2. In combination with the throttle valve of an internal combustion engine, an engine governor including a slidably mounted control rod normally urged in one direction, said rod at one end provided with a depending projection, and a plate offset intermediate its ends, and at one end adapted to be secured to the crank arm of the throttle valve of the carbureter, and at said one end provided with a depending ear laterally engaging said crank arm, said plate at its opposite end being apertured for accommodating said depending extension.

In testimony whereof, we affix our signatures.

ALBERT BRANDL.
CARL F. WEGNER.