N° 18,084 A.D. 1906

*Date of Application, 11th Aug., 1906—Accepted, 8th Aug., 1907*

COMPLETE SPECIFICATION.

## Steering Rod with Controlling Levers for Motor Road Vehicles.

I, AUGUST HORCH, of Motorwagenwerke, Zwickau, Saxony, Engineer do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

This invention relates to the arrangement of the controlling levers for the vaporising and igniting operations in connection with automobile vehicles. The levers pivoted on the steering wheel are connected with tubular shafts which are arranged centrally in the steering rod and by their rotation at the lower end of the steering rod actuate slide cranks with toothed stop rods and flexible stop pins.

In the accompanying drawing

Fig. 1 is an elevation of the steering rod, the uppermost and lowermost parts being in section

Fig. 2 is a perspective view of the lowest part

Fig. 3 a projection thereof or section through A A in Fig. 2.

Fig. 4 a section through B B in Fig. 2.

The steering wheel *a* is fixed in the usual manner to the hollow steering rod *b* with corrugated bearing *c* and steering screw thread *d*. On the latter is the sliding sleeve *e* carrying a pin, *f*, which actuates the steering angle-lever through the block *g*.

In the hollow steering rod *b* are the two tubes *i* and *k*, to which the two hand levers *l* and *m* are fixed. The lower end of *i* carries a crank *n*, and in the same manner the lower end of the tube *k* carries a crank *o*. The pins *p* (Fig. 3) of the cranks engage in guide slots *q* of the slide pieces *r* and *s* and impart to the latter a reciprocating motion or adjustment through the rotary motion of their tubular shafts. This adjustment is ensured by toothed bars *t* and *u*, with the teeth of which pins *v* and *w* engage, both pins being connected with a screw *x*, which is movable in a fixed extension *y* and presses the pins against the toothed bars *t* and *u* through the spring *z*. According to the adjustment of the latter the fuel supply and ignition are adjusted by further adjusting rods which are suitably connected with the bars *t* and *u*. A special stop device for the hand levers *m* and *l* on the steering wheel *a* is dispensed with these levers being adjustable independently of the steering wheel and retain the adjustment and direction given to them independently of the rotary motion of the steering wheel so that the driver sees at any moment how the ignition and carburetting apparatus are adjusted.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A steering rod for motor road vehicles with rotary shafts connected with the adjusting levers for the ignition and fuel control arranged inside the steering tube, the distinguishing feature being that the lower ends of the inner adjusting shafts carry cranks, the pins of which engage in slide guides of

[*Price 8d.*]

movable slide bars with teeth for the purpose of adjusting the fuel supply and ignition independently of the position of the steering wheel.

2. The improved controlling device for motor road vehicles substantially as described with reference to the drawings.

Dated this 11th day of August 1906.

WHEATLEY & MACKENZIE,
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Agents.

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HORCH'S Complete Specification. (1 SHEET)

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 1

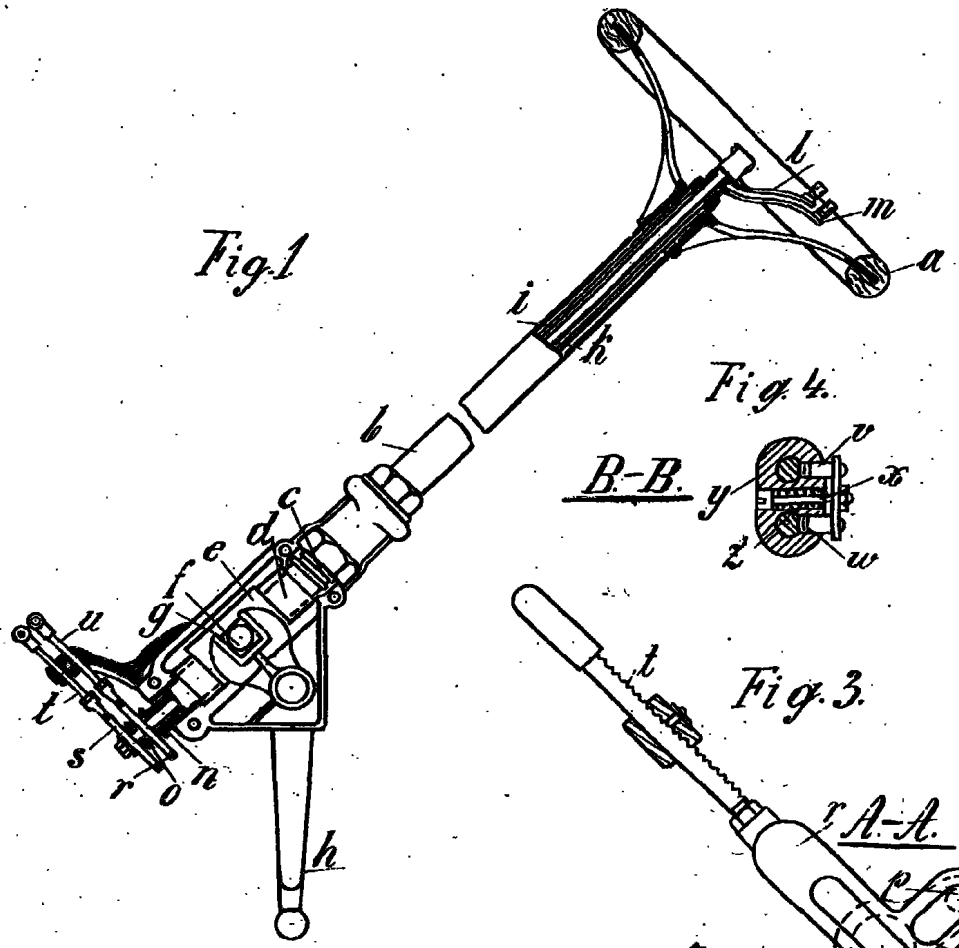



Fig. 4.

B-B.




Fig. 3.

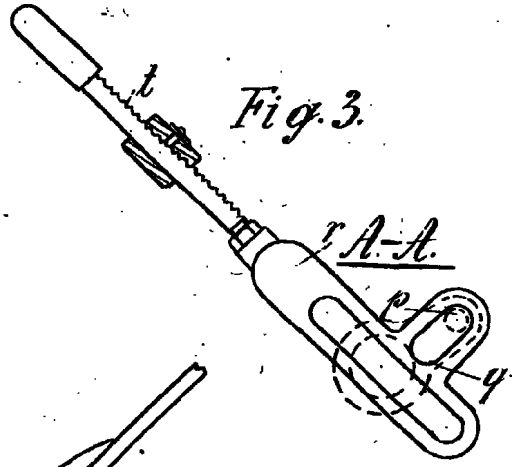
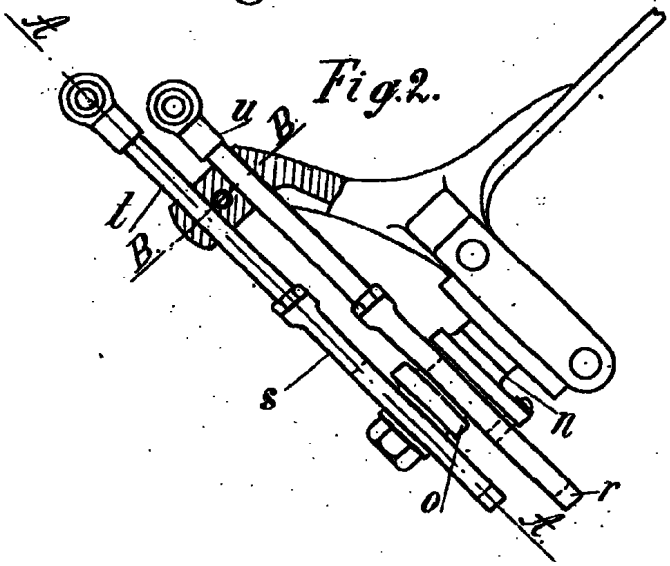



Fig. 2.



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