

March 19, 1929.

K. GERGLER, JR
REGISTERING SPEEDOMETER

1,706,152

Filed April 19, 1926

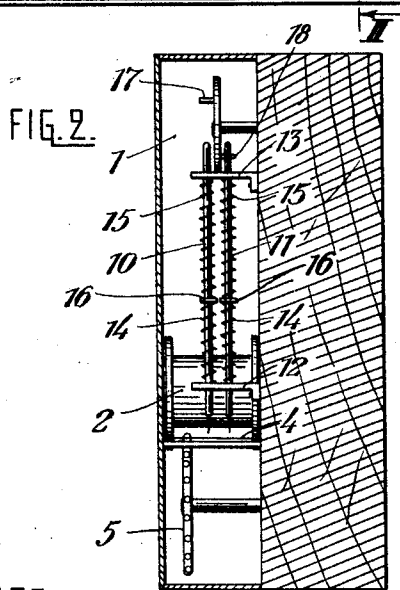
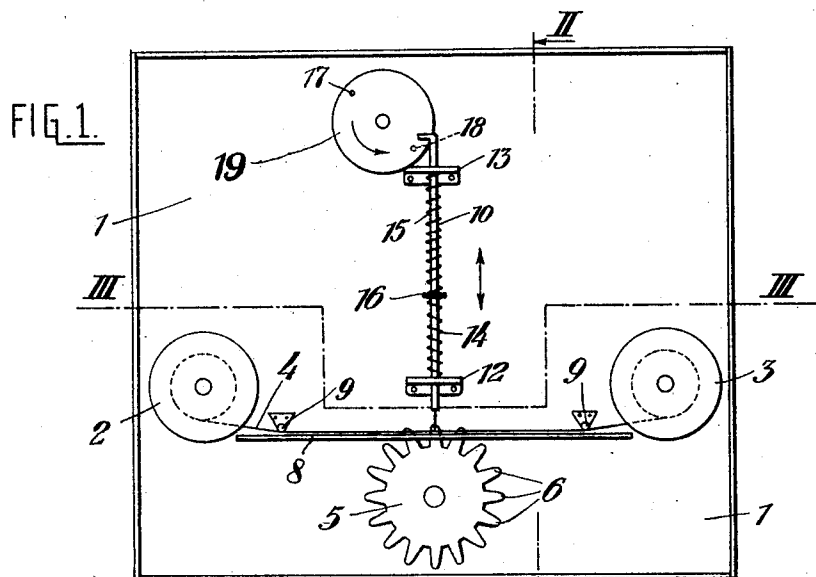
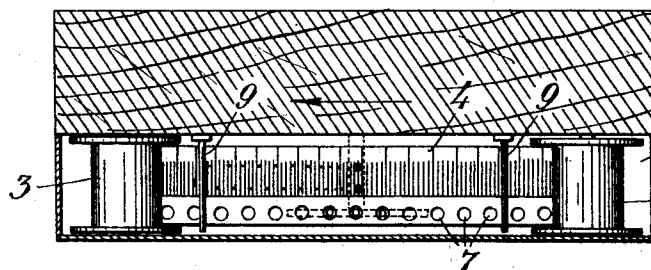


FIG. 3.



K. Gergler, Jr.
INVENTOR

By: Mark & Chap
RHY

UNITED STATES PATENT OFFICE.

KARL GERGLER, JR., OF KREIS NEUSTADT, GERMANY.

REGISTERING SPEEDOMETER.

Application filed April 19, 1926, Serial No. 103,089, and in Germany July 27, 1925.

Speedometers are already known in which a registering band is moved uniformly by clockwork mechanism, distances being indicated by needle pricks, holes, or the like.

5 The holes made in the registering band lie more or less closely together in a straight line, the spaces depending upon the speed of the vehicle. When the speed of the vehicle is very high it sometimes happens that
10 the separate holes are so closely together that they almost cut the band across.

It has also been proposed to stagger the holes or impressions so that a larger number of them can be made in series than would
15 otherwise be possible. In speedometers of this type the registering band or sheet is wound around a drum, which rotates while the actual holes are set laterally with respect to one another. In such a mechanism there
20 is saving in the registering band, but the holes are close together and form a continuous, although curvilinear line, which in certain cases may likewise produce a cutting line if the holes are quite close together.

25 These disadvantages are obviated by the speedometer provided according to the invention. In this mechanism two needles are provided side by side, which are operated alternately. By this arrangement there is
30 not only a saving in the registering band but, by reason of the fact that every second needle hole is in a separate row, the band is not cut through by the needles.

The present invention is diagrammatically
35 illustrated in the accompanying drawings by way of example. In the drawings,

Figure 1 is a front elevation of the mechanism according to the invention with the cover plate removed;

40 Figure 2 is a section taken on the line II—II of Figure 1; and

Figure 3 is a section taken on the line III—III of Figure 1.

In the casing 1 rollers 2 and 3 are provided
45 and upon them a registering band 4 may be wound and unwound. The rollers may be rotated by means of springs or in any other suitable manner. The speed at which the rollers rotate and therefore the speed at
50 which the band 4 moves, is controlled by a

toothed wheel 5, which is rotated uniformly by clockwork not illustrated, and engages by its teeth 6 in holes 7 in the band 4.

The band 4 moves upon a guide 8, upon which it is pressed by means of guide members 9, and which is slotted at this position
55 to admit the wheel 5.

The band is perforated by needles 10 and 11, which are disposed according to the invention side by side, and which are moved
60 alternately by a wheel 19 which is rotated at a speed proportional to the distance travelled. The needles are guided by the arms 12, 13 and each of the needles is held by two springs
65 14, 15 which at one end press against the arms 12, 13 and at the other end press against projections or collars 16 provided on the needles. The upper ends of the needles are bent over in such manner that the needles
70 can be lifted by pins 17, 18 provided in the wheel or disc 19. It is important that the pins 17, 18 be placed one on each side of the wheel or disc 19 in such manner that the needles are lifted alternately. By this means
75 each second needle hole is in a separate row, the holes are spaced sufficiently far apart and the band cannot be cut through.

I claim:

In a registering speedometer having punching means for recording distance marks
80 on a travelling band including a guide composed of spaced arms, a pair of needles mounted side by side for vertical reciprocation in the arms of the guide, a collar on
85 each needle and bearing against the collar and adjacent arms of the guide arranged to normally hold each needle out of contact with the band, the upper ends of the needles having
90 angularly bent engaging portions, a wheel rotatably mounted above and between the needles, and pins provided upon opposite sides of said wheel and diametrically opposed with respect to each other for cooperating
95 with the engaging portions of the needles to alternately raise and release the needles to permit the upper spring of each needle to project the needles through the band.

KARL GERGLER, JUN.