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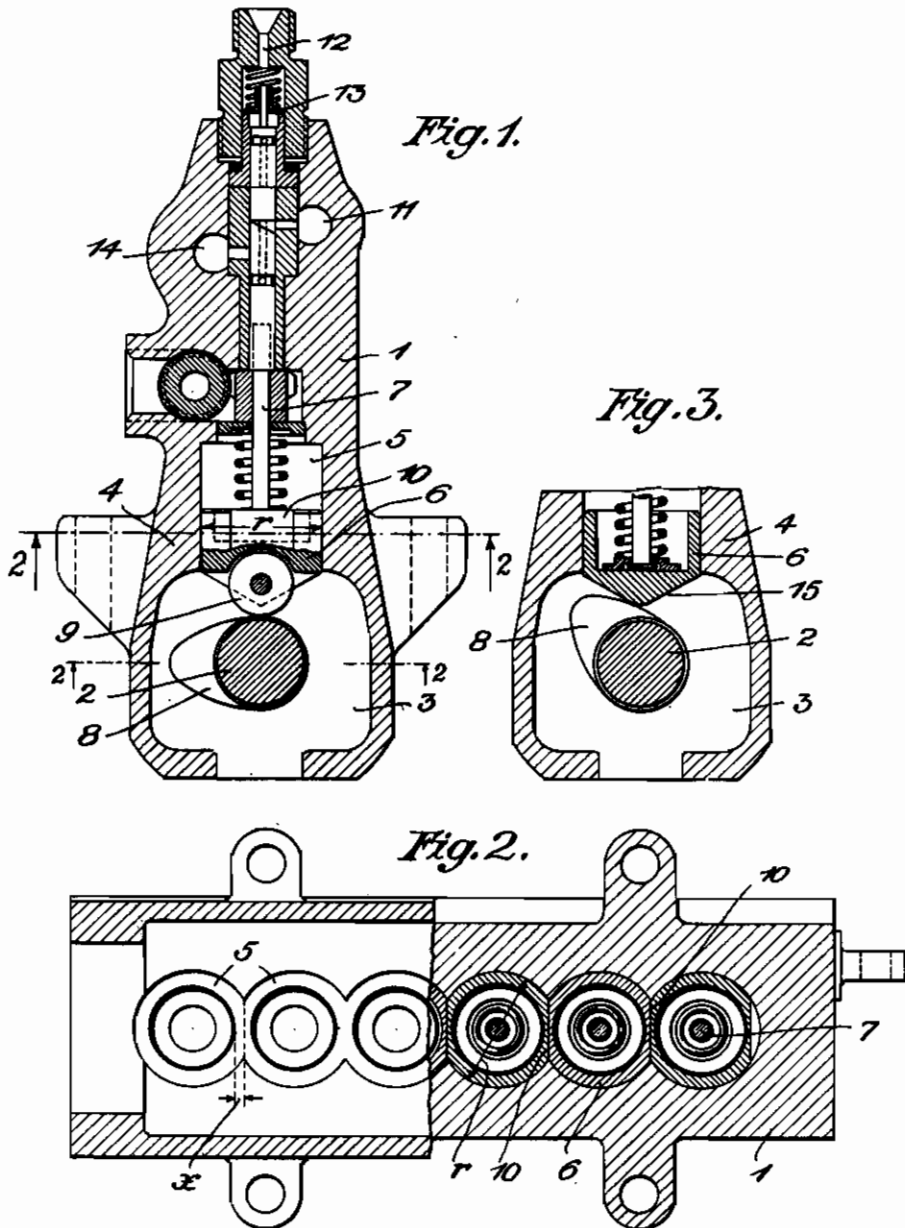
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TAPPET GUIDE, SPECIALLY FOR PLUNGER PUMPS

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TAPPET GUIDE, SPECIALLY FOR PLUNGER PUMPS

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The invention relates to a tappet guide, specially for plunger pumps with several cylinders or similar aggregates and its object is a simplification of the tappet guiding, in order to make it less expensive, and to facilitate the replacement of the tappets in case of wear or inexact guiding of the tappets, simultaneously a small length of construction of the aggregate may be obtained, if the cylinders are arranged in series.

An essential feature of the invention consists in the fact that the tappets guide each other by themselves, having for instance a diameter which is greater than the distance of the middle axes of single tappets from each other, and being flattened for a mutual guiding at the faces turned towards each other.

Further advantages proceed from the following description.

In the enclosed drawings

Fig. 1 shows a vertical section through a fuel injection pump casing with built-in tappet,

Fig. 2 shows a plan view on the left hand half, the bores for the tappets being provided in the transverse bottom of the casing, while the right hand half shows the built-in tappets and plungers, according to line 2—2 of Fig. 1.

Fig. 3 shows a section through another embodiment of the invention.

The pump casing 1 has above the space 3, containing the cam shaft 2, a transverse bottom 4. In this transverse bottom bores 5 for the tappets

6 of the plungers 7 are provided. The tappets 6 slide on the pertaining cams 8, as shown in Fig. 1, by means of the rollers 9. The fuel is sucked in from the suction space 11 and delivered into the injection pipe 12 through the pressure valve 13. After the end of the effective delivery stroke the fuel escapes into the space 14.

The bores in the transverse bottom 4 are arranged by means of a milling cutter corresponding to the maximum diameter of the tappets 6 in such a way in the axle direction of the cam shaft, one in back of the other, that they intersect each other. The dimension x of this intersection is chosen in such a manner that sufficiently wide fitting planes are produced for a satisfactory guiding of the tappets. In consequence the fitting planes 10 of each two neighbouring tappets 6 touch each other, guaranteeing a satisfactory guiding without turning. The surfaces to be machined at the tappets are comparatively small. The manufacture of the cylindrical throughgoing bores 5 is very simple. At an excessive wear of single tappets, only the tappet in question should be replaced.

In a specially simple and inexpensive type the rollers 9 may also be omitted, so that the tappets 6 slide on the pertaining cam by means of a suitable, for instance roof-shaped bottom face 15, as shown in Fig. 3.

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