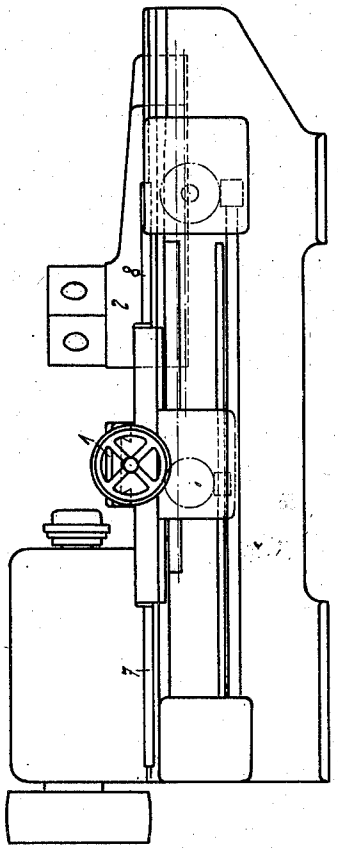
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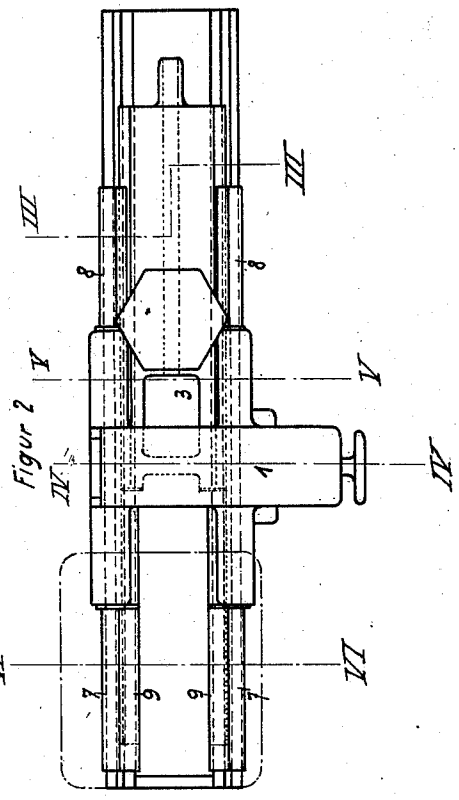
LATHE WITH CAPSTAN AND CROSS SLIDE RESTS

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Fig 1



Figur 2

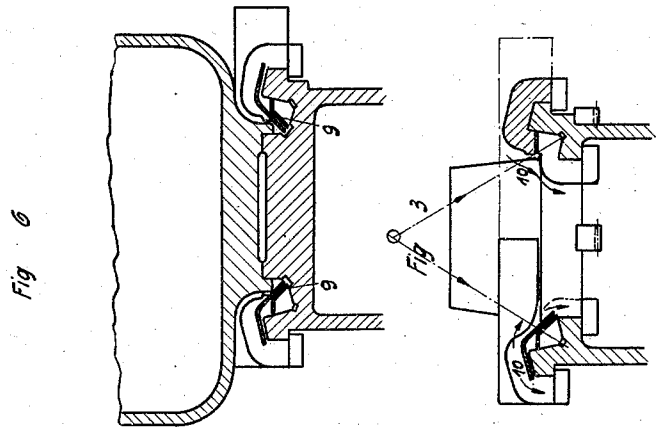


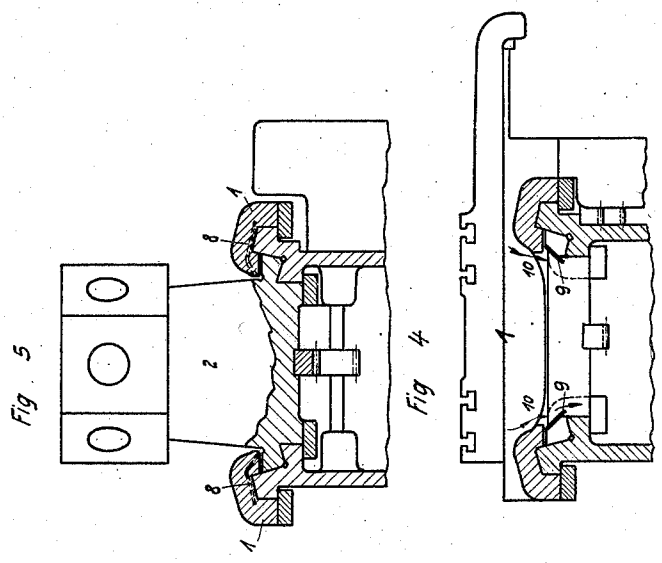
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LATHE WITH CAPSTAN AND CROSS SLIDE RESTS

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UNITED STATES PATENT OFFICE

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LATHE WITH CAPSTAN AND CROSS-SLIDE RESTS

Application filed November 15, 1927, Serial No. 233,457, and in Germany June 21, 1926.

The beds of capstan lathes of the types commonly used have the defect that provision must be made for protecting the guides from shavings and water, and that in various respects this involves inconvenience in the general design. Thus, for example in the case of lathes with turret and slide rests the rests cannot be designed to move so closely together as is desirable for some classes of work and the need of providing passages for the guide rods makes it necessary to give the rests a greater height than would otherwise be required. Moreover, the interconnection of the guides generally interferes with the removal of turnings.

The object of my invention is to remove these defects and to secure also certain other advantages from the structural and economic point of view, in connection with lathes having capstan and cross-slide rests. According to the invention the prismatic guides for the cross-slide and the capstan rest are so constructed that on each side of the bed the two prismatic guides, one above the other, have a common surface, whose upper half serves for the cross-slide, and whose lower half serves for the capstan rest. The rest working on the outer, upper portion thus forms a guard for the inner portion. There is with this construction no limitation of the length of the guide members or runners of the cross-slide, due to the capstan rest working between them, and the guide of the capstan rest towards the headstock can project under the cross-slide guide and give the capstan rest increased stability, the forces acting on it being taken centrally by the capstan bed due to the symmetrical arrangement of the connected prism guides. As neither rest interferes with the other, the guards provided for the guides can be made smooth and uninterrupted.

An example of apparatus according to the invention is shown in the annexed drawings, in which

Fig. 1 is a side elevation;

Fig. 2 a plan view;

Fig. 3 a section partly on the line III—III of Fig. 2;

Figs. 4, 5 and 6 are respectively sections on the lines IV—IV, V—V, and VI—VI of Fig. 2.

The cross-slide 1 has at each side a flange for engagement with the upper and outer member of a double prism guide at one side of the capstan bed. The capstan rest 2, projecting under the longitudinal guide members of the cross-slide, is guided by the lower members of the said prism guides. To give the capstan rest increased stability the guide extending towards the spindle stock is so extended forward, that it passes under the cross-slide 1, and opening 3 for turnings being provided, as shown in Figs. 2 and 3. The cross-slide has guards 7 and 8 on the right and left, and the capstan rest 2 has guard strips 9. The turnings can pass out freely as indicated by the arrows 10.

What I claim is:

1. A lathe having a cross-slide, a capstan rest and a bed, prism guides on said bed for the rest, disposed in pairs symmetrically to the lathe axis, the members of each pair being one above the other, and joined, with one common guide surface, the upper half serving for the cross slide and the lower half for the capstan rest, so that the cross slide guards the inner guide, and continuous guard strips carried side by side by said rest, the rest having also continuous guard strips side by side which guard the guides in all positions of the rest.

2. A lathe as claimed in claim 1, wherein the capstan rest, without limiting the length of the guide members of the cross-slide, can be moved between these members so close to the cross-slide that the guide member extending towards the headstock extends under the cross-slide, this member having an aperture for the passage of turnings.

In testimony whereof I have signed my name to this specification.

WILHELM HEINEMANN.