

H. G. VOIGHT.
 PINTLE FOR HINGES.
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1,097,741.

Patented May 26, 1914.

Fig. 1.

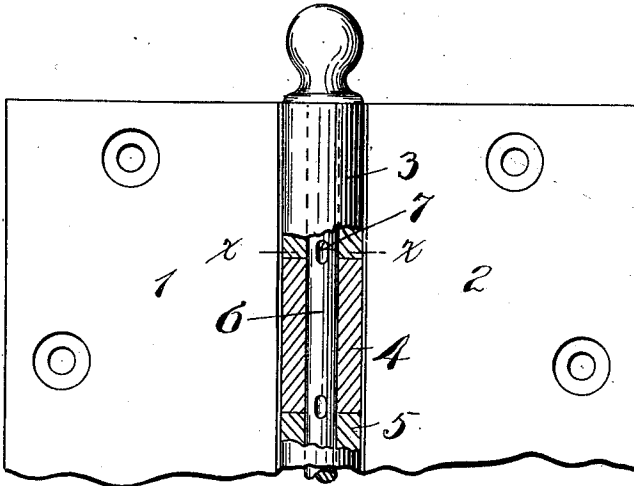


Fig. 2.

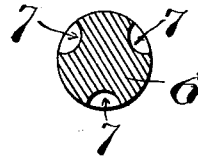


Fig. 3.

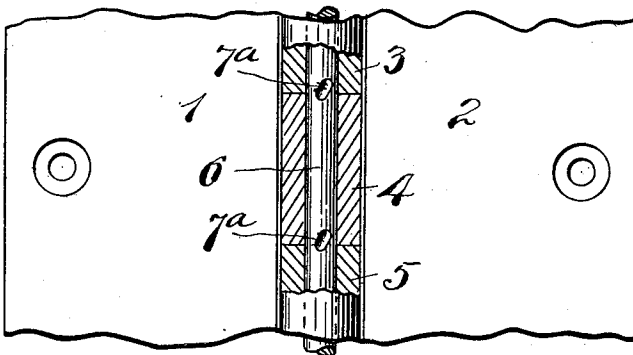
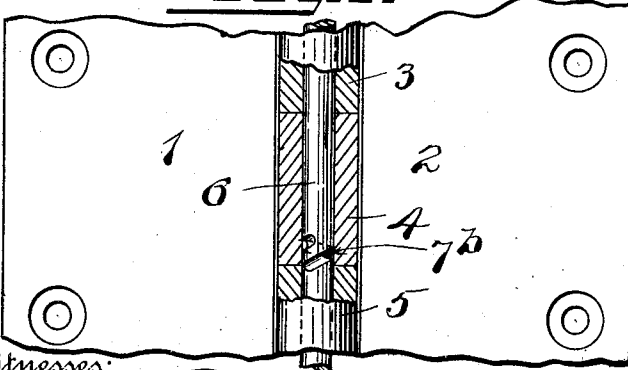


Fig. 4.



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UNITED STATES PATENT OFFICE.

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PINTLE FOR HINGES.

1,097,741.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY G. VOIGHT, a citizen of the United States, residing at New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Pintles for Hinges, of which the following is a full, clear, and exact description.

My invention relates to improvements in pintles for butts and hinges and consists in providing an improved pintle construction designed to carry a lubricant to the joints of the hinge, thus preventing squeaking, guaranteeing easy operation and reducing wear to a minimum.

In the drawings, Figure 1 is a view of part of a butt or hinge opened and showing parts of the knuckles in section. Fig. 2 is a cross section of the pintle relatively enlarged, on the plane of the line $x-x$, Fig. 1. Fig. 3 is a view similar to Fig. 1 but illustrating a modification. Fig. 4 is a view similar to Fig. 3 illustrating another modification.

1—2 represent the complementary leaves of a butt or hinge, which leaves are provided with the usual knuckles 3—4—5 designed to be held together in the usual way by a pintle.

6 represents the pintle, the same being provided with one or more lubricant-holding cavities or recesses 7—7 located in the side of the pintle and only partially interrupting the circumference thereof. These cavities or recesses provide pockets for the reception of a suitable lubricant, and the cavities are preferably located in the region of the joints between the knuckles so that the lubricant will be applied to the joint with certainty. Each lubricant-holding pocket is preferably elongated, the major axis being in the general line of the pintle, the greater portion of each pocket being preferably above the joint which it is intended to lubricate so that the lubricant in said pocket will feed by gravity down to its joint, the lower end of each pocket terminating adjacent to its respective joint so that the lubricant will not be conducted down below the joint to be cared for.

In Fig. 2 I have shown a plurality of these grease-holding pockets, and it is here readily observable that these pockets only partially interrupt the circumference of the

pintle in the region of the pocket, the advantage of which will be later explained.

In Fig. 3 the grease-holding pocket or recess is indicated at 7^a and in this instance is arranged obliquely instead of vertically, as shown in Fig. 1.

In Fig. 4 the grease-holding pocket 7^b is in the form of a spiral extending entirely around the pintle. Here again the circumference of the pintle at any given transverse plane is only partially interrupted.

I am aware that heretofore pintles have been constructed with annular lubricant-holding channels adjacent to the joints between the knuckles, but it is apparent that an annular channel reduces the entire circumference of the pintle, thereby materially weakening the same. When this annular lubricant-holding channel is located at the joint, it obviously weakens the hinge at the vulnerable point. By my improvement, since the circumference is only partially interrupted at any given transverse plane, it is obvious that the strength of the pintle is but very slightly impaired, and in my construction it is possible to enlarge the pocket above the line of the joint to thereby contain a large amount of lubricant, because to enlarge the recess at any point entirely within a hinge knuckle as distinguished from at the joint between two knuckles, will not seriously affect the strength of the hinge, because little or no strain comes on the pintle excepting directly at the joints.

In the operation of my invention, the movement of the knuckle on the pintle tends to assist the feeding of the lubricant by gravity down to the joint as said lubricant becomes exhausted at the joint and requires replenishing.

As shown in Fig. 3, the spiral pocket makes more than one complete turn. The length of the spiral may, of course, be increased or diminished at will and may, in fact, make several turns if desired. It is preferable in all instances that one end of the lubricant-holding pocket should terminate closely adjacent to the joint, if not directly at the joint. The method of forming the lubricant-holding recesses or pockets in the pintle is immaterial.

What I claim is:

1. A hinge pin or pintle having a lubricant-holding recess or pocket in the side ar-

1 ranged to hold lubricant to lubricate a hinge
joint, said pocket only partially interrupt-
ing the circumference of the pin at any
given transverse plane, the lower end of said
5 pocket terminating adjacent to the hinge
joint intended to be lubricated.

2. A hinge pin or pintle having a lubri-
cant-holding recess or pocket in the side ar-
ranged to hold lubricant to lubricate a hinge
10 joint, said pocket only partially interrupt-
ing the circumference of the pin at any
given transverse plane, said pocket being
elongated, the lower end of said pocket ter-
minating adjacent to the hinge joint in-
15 tended to be lubricated.

3. A hinge pin or pintle having a lubri-
cant-holding recess or pocket in the side ar-
ranged to hold lubricant to lubricate a hinge
joint, said pocket only partially interrupt-
20 ing the circumference of the pin at any

given transverse plane, said pocket being
elongated and extending obliquely, the lower
end of said pocket terminating adjacent to
the hinge joint intended to be lubricated.

4. A hinge pin or pintle having a lubri- 25
cant-holding recess or pocket in the side ar-
ranged to hold lubricant to lubricate a hinge
joint, said pocket only partially interrupt-
ing the circumference of the pin at any
given transverse plane, said pocket being 30
elongated and extending obliquely and en-
tirely around the pin in the form of a
spiral, the lower end of said pocket ter-
minating adjacent to the hinge joint intended
to be lubricated.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."