No. 644,509. Patented Feb. 27, 1900.

C. H. FAIRBANKS.

FRICTION HINGE.

(Application filed July 17, 1899.)

(No Model.)

Fig. 1.

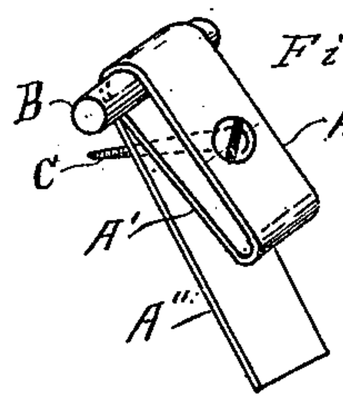


Fig. 2.

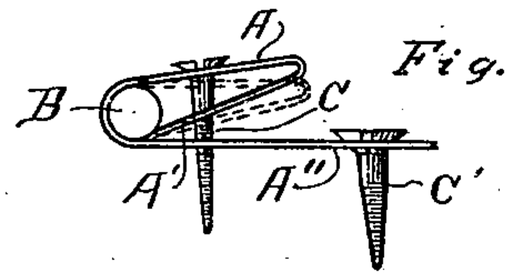


Fig. 3.

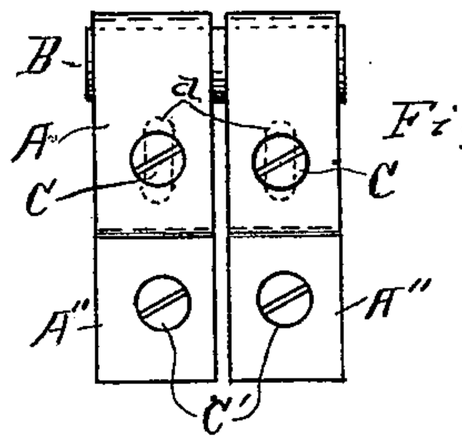
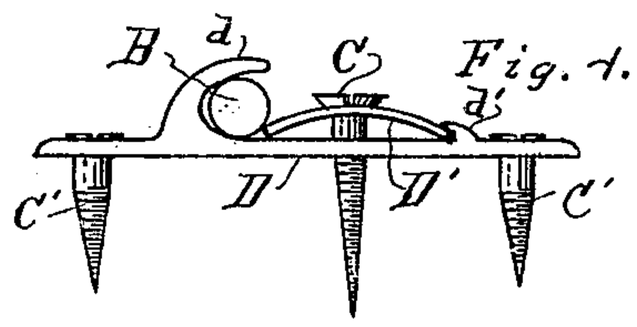


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES H. FAIRBANKS, OF GRAND RAPIDS, MICHIGAN.

FRICTION-HINGE.

SPECIFICATION forming part of Letters Patent No. 644,509, dated February 27, 1900.

Application filed July 17, 1899. Serial No. 724,185. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. FAIRBANKS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Friction-Hinges, of which the following is a specification.

My invention relates to improvements in friction-hinges for use in suspending mirrors upon the frames of dressers; and its object is to provide a hinge with which the longitudinal pressure of the strap may, combined with the circumferential pressure on the pin and the frictional properties of the hinge, be thus greatly increased without extra strain upon the tension-screw, thus averting the danger of stripping the thread in the supporting or mirror frame by reason of having to drive the screw too hard. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of one strap of the hinge upon the pintle. Fig. 2 is an edge view of the same. Fig. 3 is an elevation of the hinge; and Fig. 4 is a modified form of the same, showing the longitudinal action of the strap as used upon a malleable base.

Similar letters refer to similar parts throughout the several views.

I construct my hinge in three pieces—to wit, two straps A and a pintle B. The straps are bent to partially encircle the pintle, as shown, and each is bent back upon itself, as at A′, so that the end will bear against the lower or back surface of the pintle and between the pintle and the base A″ of the strap, so that to screw the screw C into the wood will not only draw the strap around the pintle and cause friction, but will force the end A′ to bear snugly between the pintle and the base, and thus greatly increase the strain upon and friction around the pintle. To make this action effective, it is necessary to elongate the aperture through the portion A′ through which the tension-screw passes, as indicated by the dotted lines *a* in Fig. 3, so that this portion may slide longitudinally without interfering with the screw.

C′ represents an auxiliary screw for holding the base to the frame and to avert the danger of the hinge sagging, as would be likely to be the case if it was supported wholly by the tension-screw C.

In Fig. 4 I have shown a metallic base D, having a frictional arm or horn *d* for the reception of the pintle, and a small lug *d′* for the support of the friction-spring D′, which is inserted, as shown, so that the action of the tension-screw will cause this spring to act upon the pintle B exactly as the end A′ of the strap A acts upon the pintle in the form shown in the preceding figures. This form of hinge while not as effective is more expensive than the other form and is shown as indicating that I do not desire to restrict myself to the one form hereinbefore described, but wish to cover all colorable equivalents of the same.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a friction-hinge, a base partially surrounding a pintle, a pintle, a tension-screw, and a spring mounted upon the base and having one free end engaging both the pintle and the base to produce frictional contact between the pintle and the base, substantially as, and for the purpose set forth.

2. In a friction-hinge, a pintle, a spring-strap partially surrounding said pintle forming a base and a suspended arm, the end of this arm bent back in position to bear upon the pintle and the upper surface of the base to force the pintle into the bend of the strap to cause friction, and a tension-screw for securing said strap, substantially as and for the purpose set forth.

Signed at Grand Rapids, Michigan, July 12, 1899.

CHARLES H. FAIRBANKS.

In presence of—
I. J. CILLEY,
C. K. FROST.