

C. W. FOX.  
Gate Latches.

No. 116,042.

Patented June 20, 1871.

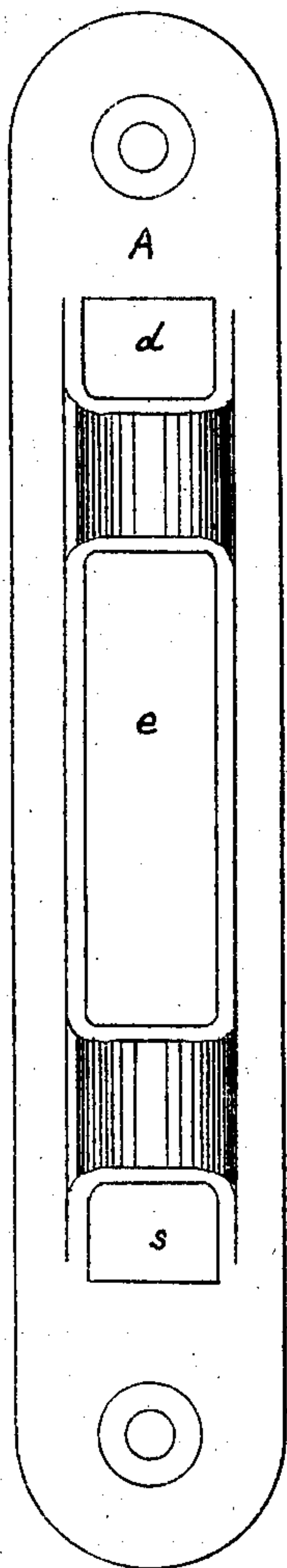


Fig. 3.

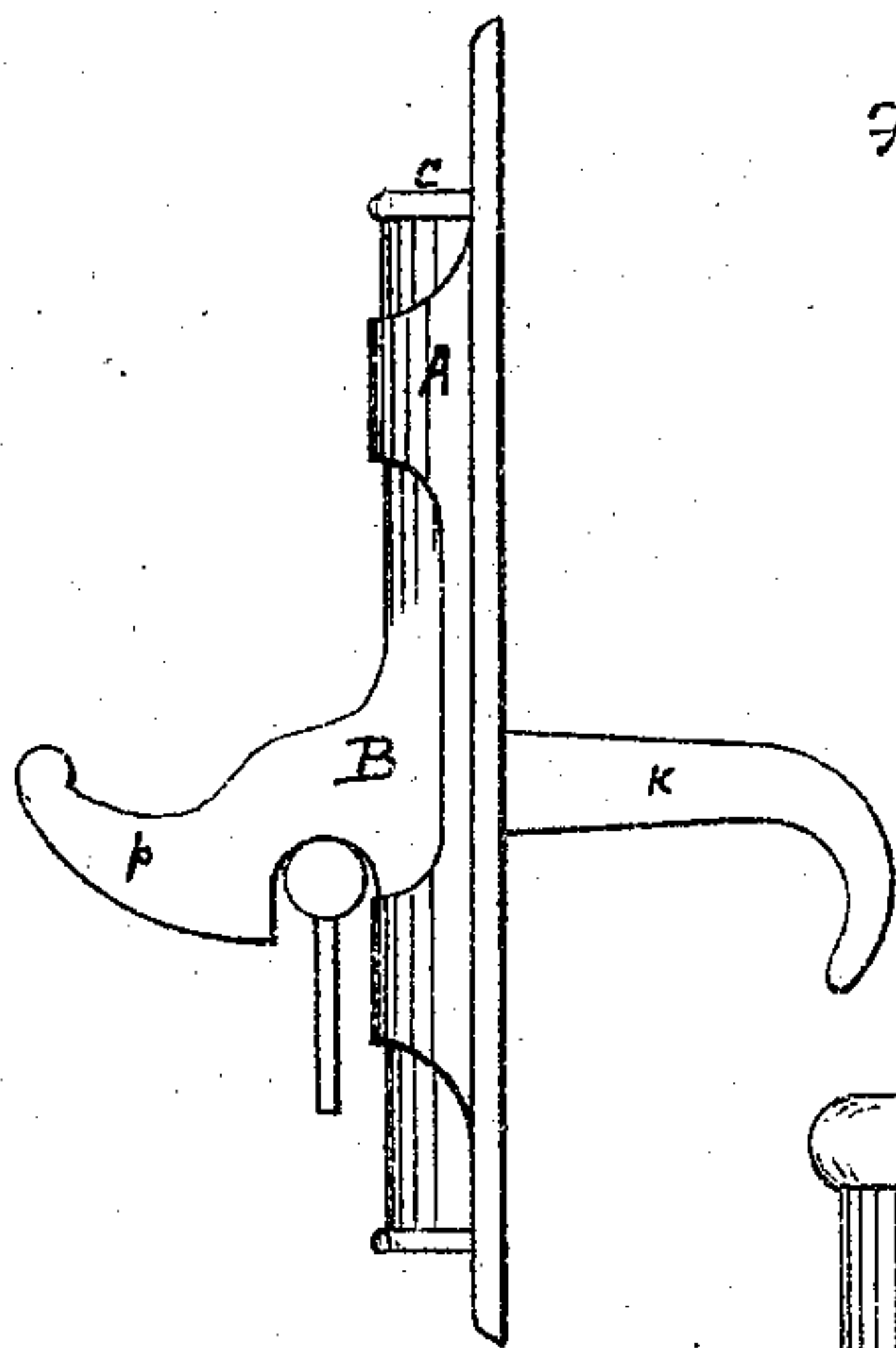


Fig. 1.

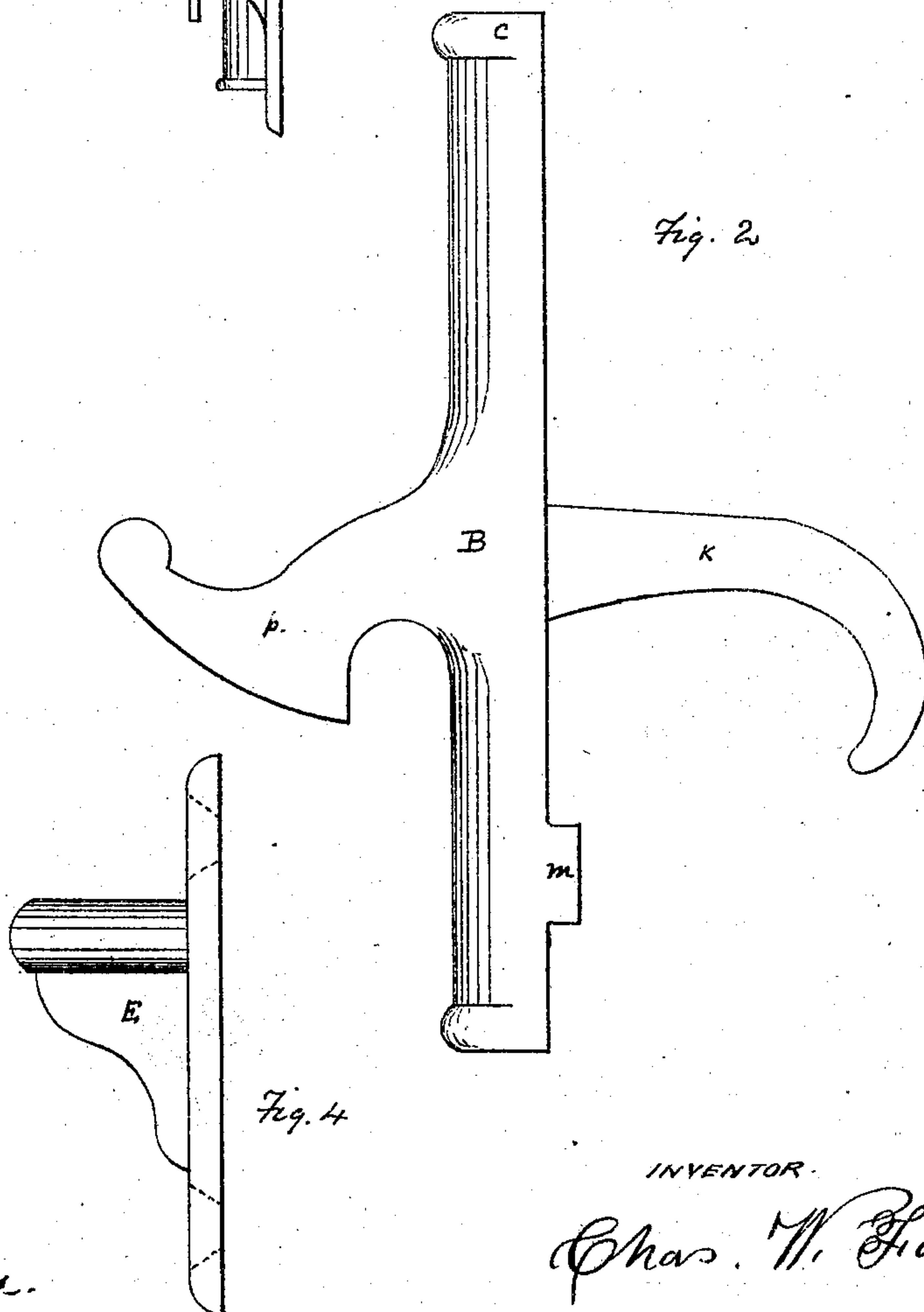


Fig. 2.

Fig. 4.

WITNESSES  
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## IMPROVEMENT IN GATE-LATCHES.

Specification forming part of Letters Patent No. 116,042, dated June 20, 1871.

*To all whom it may concern:*

Be it known that I, CHARLES W. FOX, of the city and county of St. Louis, in the State of Missouri, have invented a new and useful Improved Gate-Latch, of which the following is a full, clear, and exact description, reference being had to the annexed drawing making a part of this specification, and in which—

Figure 1 represents a side view of my latch as it appears when in use. Fig. 2 represents a side view of the latch. Fig. 3 represents a plan of the slotted plate in which the latch works. Fig. 4 represents a side view of the keeper.

Similar letters indicate like parts.

The object I have in view is to produce a latch self-acting, which may be applied either to lattice-gates having broad stiles or to ordinary wooden gates or doors; and, consisting of few parts, may be rapidly and easily adjusted by reason of its peculiar construction. My latch is intended to rise and fall vertically, and although other latches, as that of G. M. D. Pomroy, patented 23d April, 1867, operate in this manner, yet mine is intended as an improvement on that form of construction, since it does away entirely with one of the parts; and it is much more easy of adjustment and cheaper in construction.

A, Figs. 1, 3, is a slotted plate cast in the form and with the several openings as shown, into which the latch B, Figs. 1, 2, also cast to correspond with the openings in the plate A, is inserted in the following manner: The end *c* is passed through the opening *d* of the plate; then the hook *p* of the latch is inserted in the other opening *e*, allowing the other end of the latch to slip into the opening *s*, when the latch is ready to be fastened to the gate or door. This peculiar manner of casting the plate and latch so that the openings in the one may engage with and adapt themselves to the projection of the other, thus enabling the parts to be rapidly and certainly adjusted by even the most unskillful, and having no small parts to be mislaid, is one of the merits of my mode of construction. A slot being cut in the gate or door for the insertion of the handle *k*, the plate is then screwed to the gate; and the keeper E,

which may be of any suitable form, being fastened in the proper position, the latch is completed. On the back of the latch B is a projection or stud, *m*, Fig. 2, for the purpose of preserving the latch in a vertical position during its motion and keeping it from binding or clogging.

The gate being closed, it is readily opened by the handle *k*; and, when it is pushed back, the beveled edge of the hook *p*, striking the keeper, raises the latch till, passing the keeper, its weight causes it to fall and fasten the gate.

Although having a handle, *k*, makes the latch operate better by reason of the more even distribution of the weight, yet when it is desired to use the latch on gates having broad stiles, where it would be impracticable to use the handle, I construct a latch having no handle, and find the same to work well.

From this description it will be seen that my latch proper consists of but two parts, which are adjusted in a moment, requiring no screws, pins, or other device to connect them, the only screws that are used being those necessary to fasten the latch-plate to the gate. There is no necessity of casting a third part to act as a keeper to prevent the latch from coming out of the plate when it is raised, which third part must be fastened by screws or rivets after the latch is inserted in the plate, my construction doing away entirely with such third part by making the plate act both as holder and keeper.

This form of latch is, of course, adapted for use on inner doors by being made somewhat lighter and neater in design, the only essential requisite being that, to work well, it must rise and fall freely in the holder-plate and be sufficiently vertical to drop by its own weight.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the slotted plate A with its two projecting guiding-bands and openings, *d*, *e*, and *s*, latch B, handle *k*, and keeper E, all constructed and arranged as and for the purpose shown and specified.

CHARLES W. FOX.

Witnesses:

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WALTER B. WATSON.