

No. 844,385.

PATENTED FEB. 19, 1907.

P. MOMMERTZ.

PIT PROP.

APPLICATION FILED APR. 24, 1906.

Fig.1 Fig.3. Fig.4. Fig.6. Fig.8. Fig.2

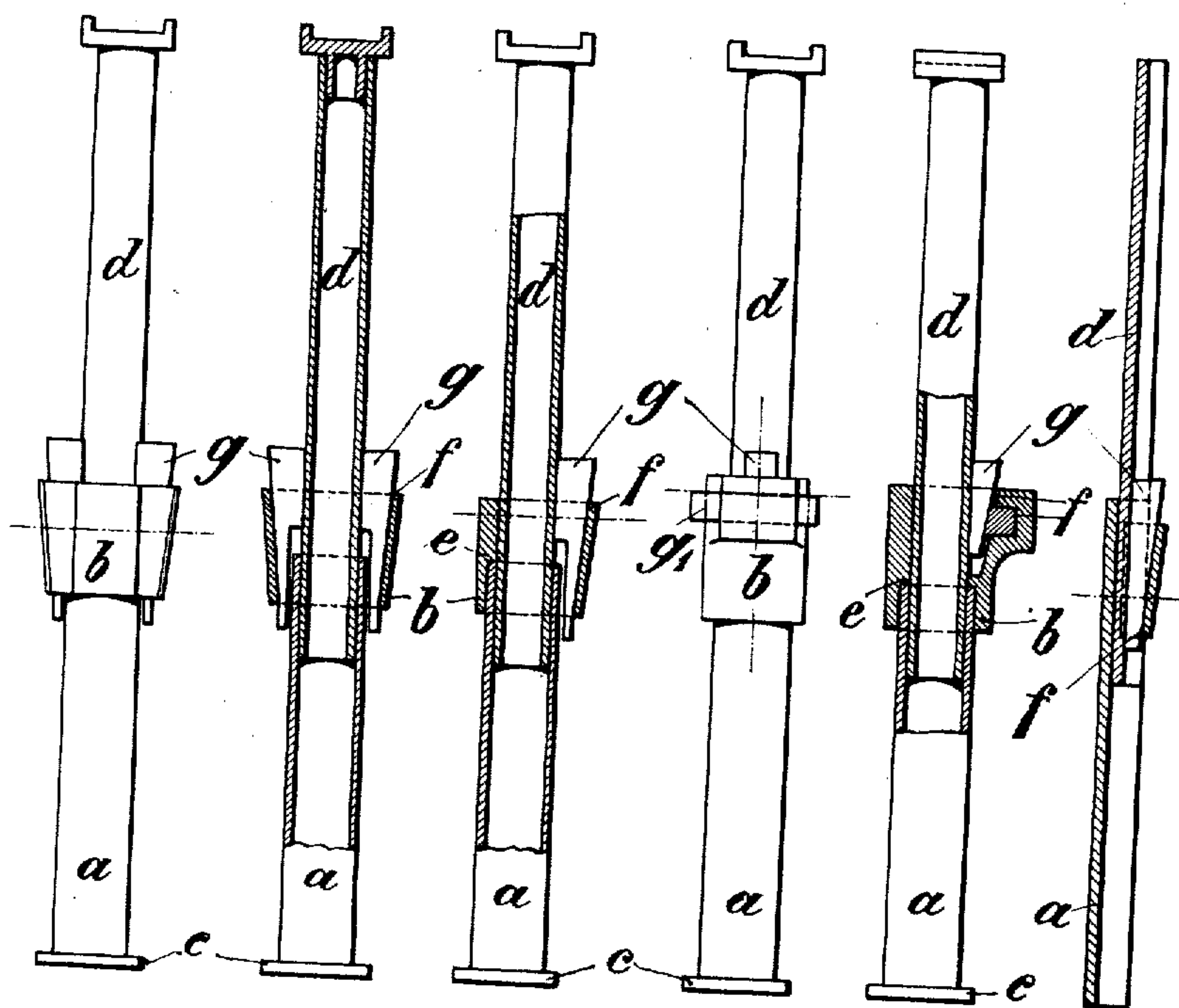


Fig.2.

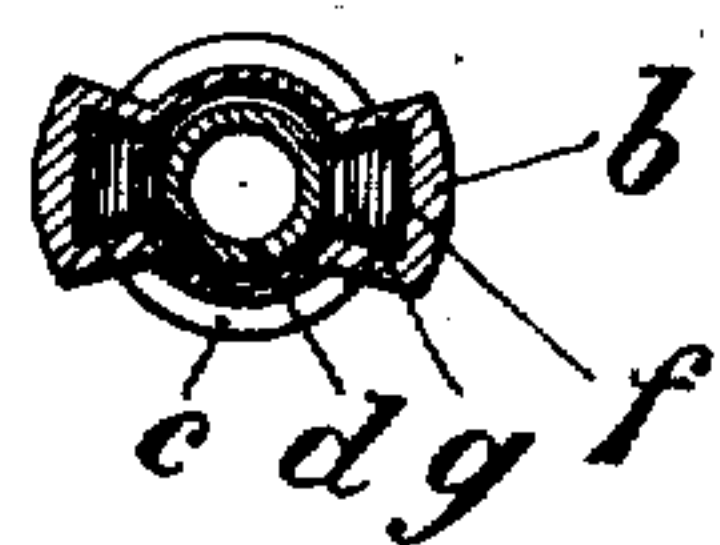


Fig.5. Fig.7.

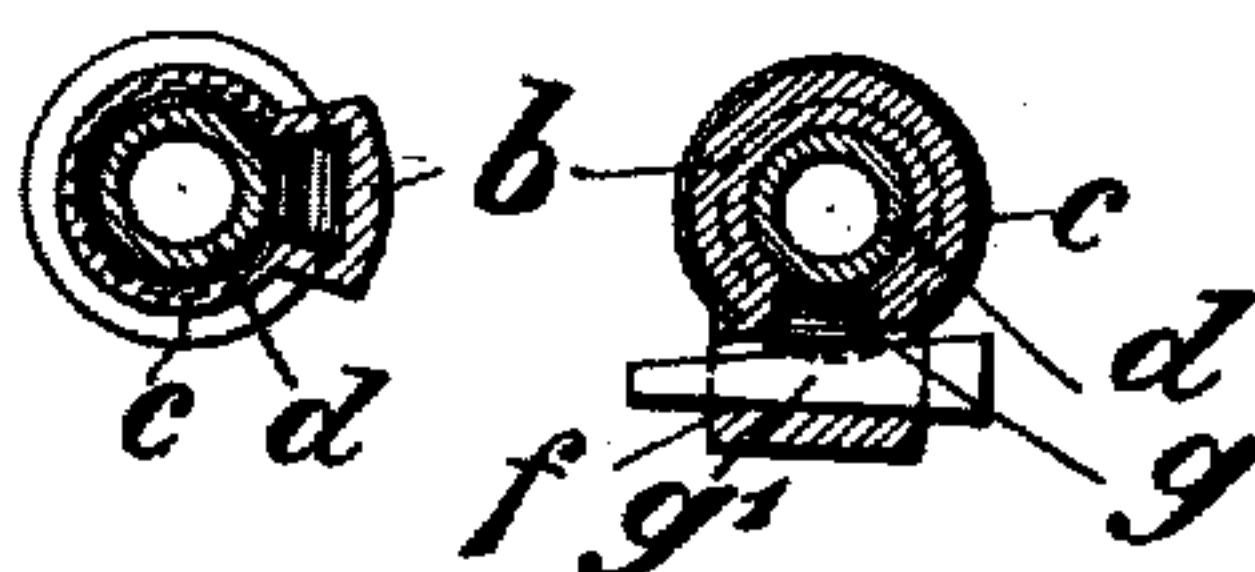


Fig.10.



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UNITED STATES PATENT OFFICE.

PETER MOMMERTZ, OF MARXLOH, GERMANY.

PIT-PROP.

No. 844,395.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed April 24, 1906. Serial No. 313,430.

To all whom it may concern:

Be it known that I, PETER MOMMERTZ, a subject of the German Emperor, residing at Marxloh, Germany, have invented a new and useful Pit-Prop, of which the following is a full and complete specification.

In the iron pit-props known at present, which are held to their required heights by cross-wedges, binding-screws, &c., there is the disadvantage that they either cannot be fixed at any required height or that the binding contrivance is so clumsy and inconvenient that it cannot be easily manipulated and that where great pressure is brought to bear on the prop it or the binding attachment gives way. In the present invention these disadvantages are obviated by the prop being formed of two telescoping tubes, which are locked in position by a wedge moving in the perpendicular or by a revolving eccentric. This locking is effected automatically. Hereby is attained not only a simple automatic locking arrangement, but the locking contrivance in proportion to the increasing pressure put upon it effects a firmer locking of the tubes or wedges, so that it is impossible for the tubes to telescope or to give way.

The prop is represented in the drawings in Figures 1 to 11, of which Fig. 1 is a front elevation; Fig. 2 a plan view in section, while Fig. 3 shows a mortised wedge and the prop in perpendicular section, in Fig. 4, cross-section, and 5 plan view in section, the employment of only one wedge being shown. Finally, Figs. 6, 7, and 8 represent a contrivance in which the laterally-adjustable wedge or key carries another which is adjustable longitudinally. Figs. 9 and 10 make it clear that any form of fashioned iron may be used.

The prop is composed of a fixed lower member *a*, having foot *c*, and of an upper vertically-movable member *d*, telescoped by member *a*. Upon upper edge *e* of member *a* is supported a casing *b*, that projects above said member and is here provided with tapering key-seats *f*. These key-seats are adapted

for the reception of wedges *g*, that also bear against the lower end of upper member *d*.

When the inner or upper part *d* of the prop is inserted in the outer part *a* and adjusted to position, the wedge *g* is inserted in the groove *f* and the tube or fashioned iron is secured without further trouble, and a slipping of same is rendered impossible. The loosening, adjusting, &c., of the prop is very easily effected by giving a single blow against the wedge, which may be of any desired substance, whereby part *d* is liberated. If, however, in the presence of great pressure it is desired to ease the prop, it can be readily effected, and with a little caution and attention there will be no breaking or bending of the prop, an evil which is ever present in those at present in use, as in their case the locking contrivance can only be reached with difficulty, and then the prop loses its portable power, whereas the present prop takes up its burden immediately. There may also be employed several similar telescoping tubes or fashioned-iron stays or girders; also, there may be some packing inserted between wedge and tube. The stroke of the wedge *g* may be limited by a binding-screw traversing through the wedge-lock or, as shown in Figs. 6 to 8, by a wedge *g'*, adjustable horizontally.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A pit-prop composed of a lower member, a casing supported thereon and having a tapering key-seat above said member, an upper member telescoped by the lower member, and a wedge within the tapering key-seat that engages the upper member, substantially as specified.

Signed by me at Düsseldorf, Germany, this 29th day of March, 1906.

PETER MOMMERTZ.

Witnesses:

WILLIAM ESSENWEIN,
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