

Neversgold & Brosey,

Friction Clutch.

N^o 68,778.

Patented Sep. 10, 1867.

Fig. 1.

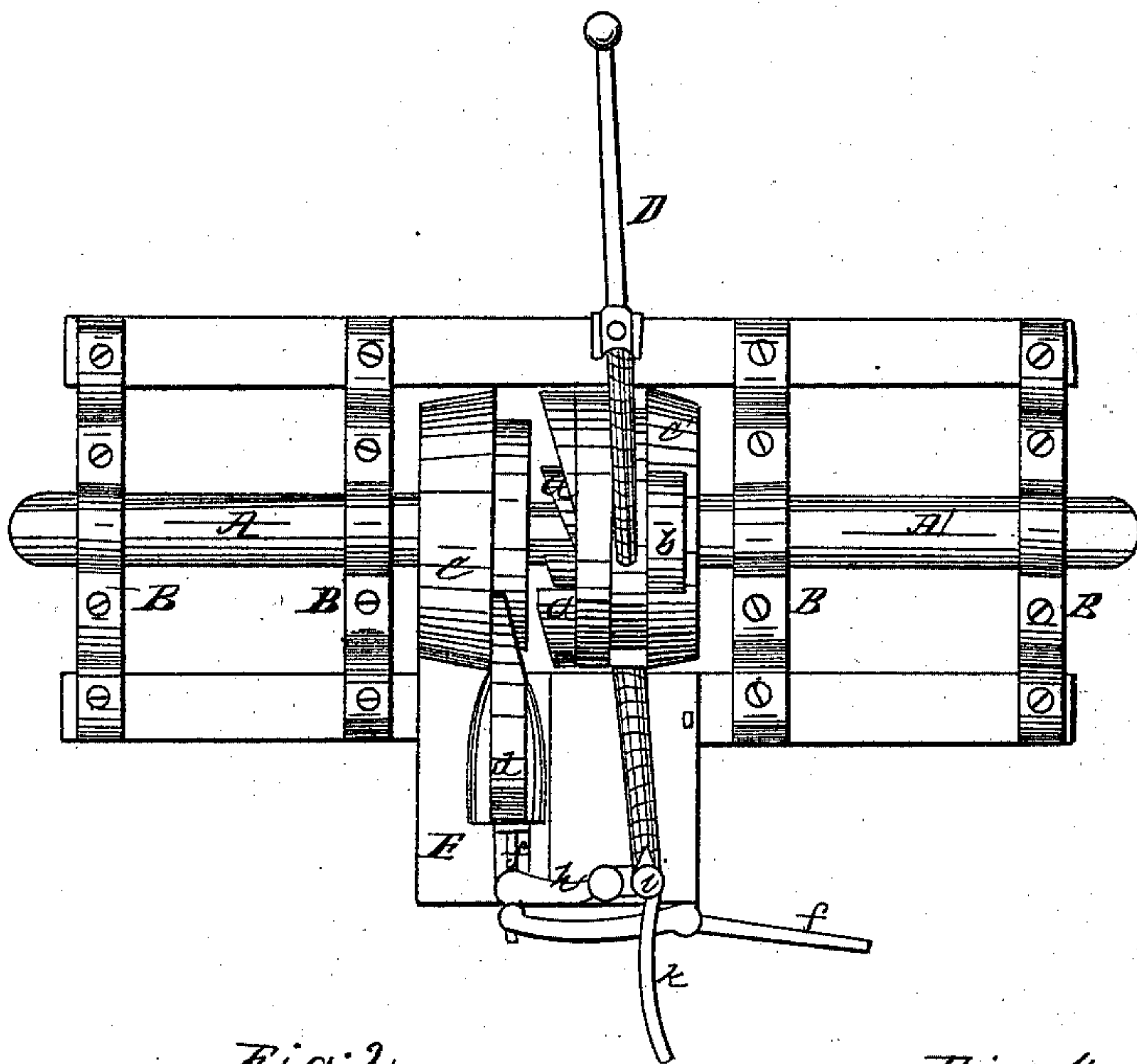


Fig. 2.

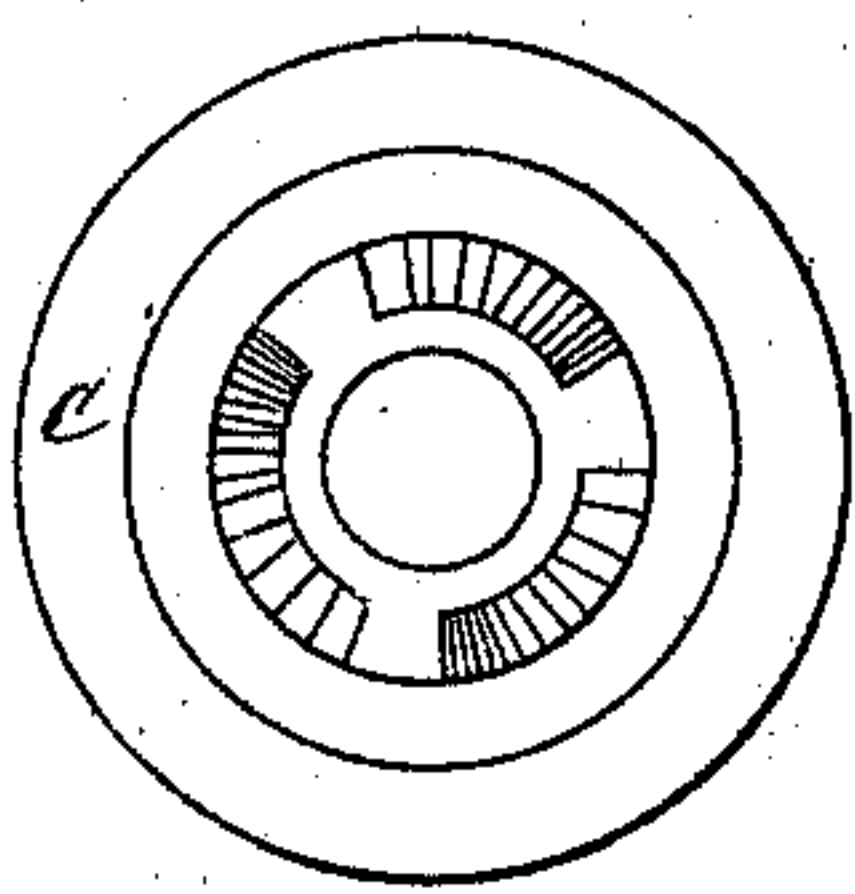


Fig. 3.

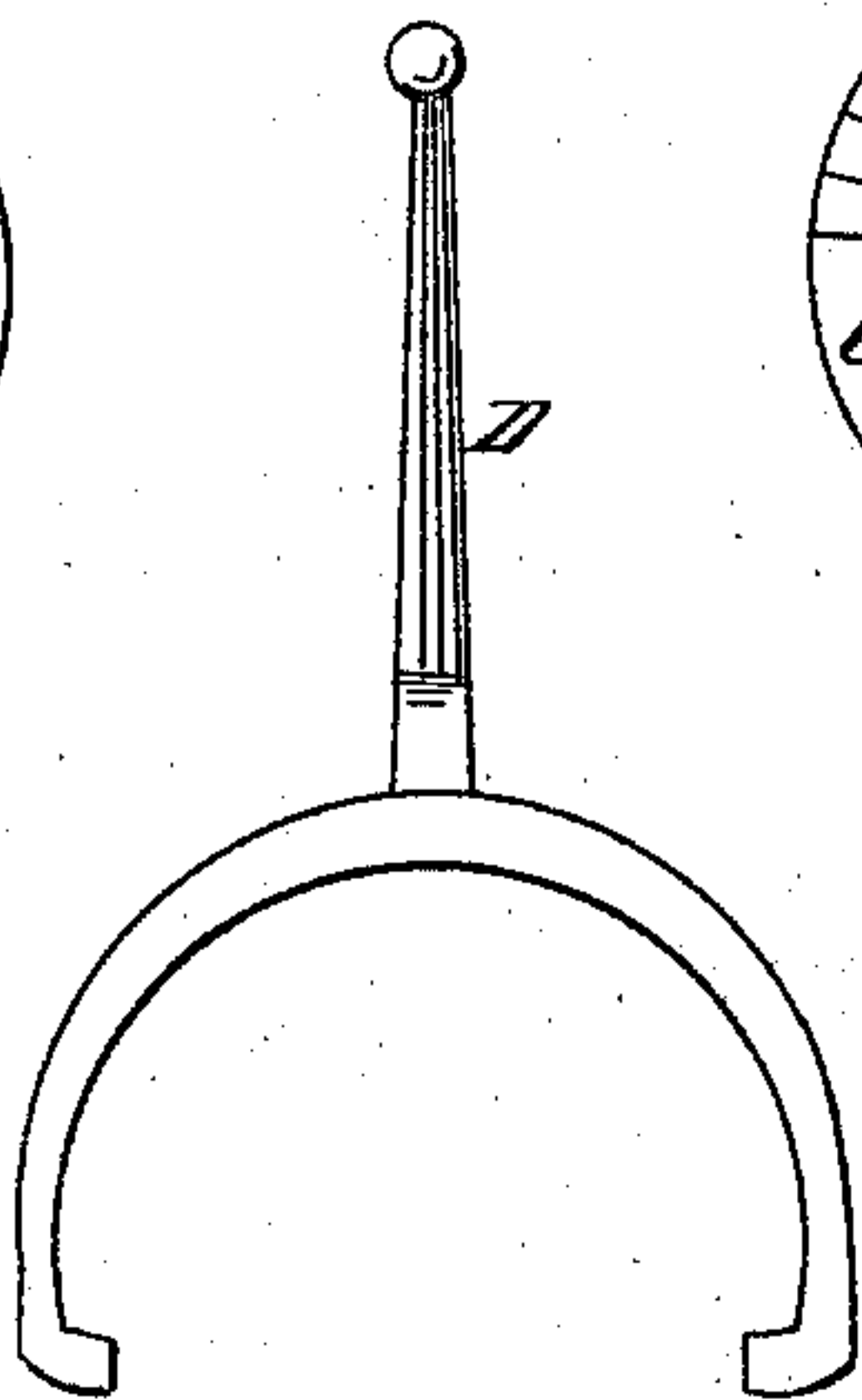
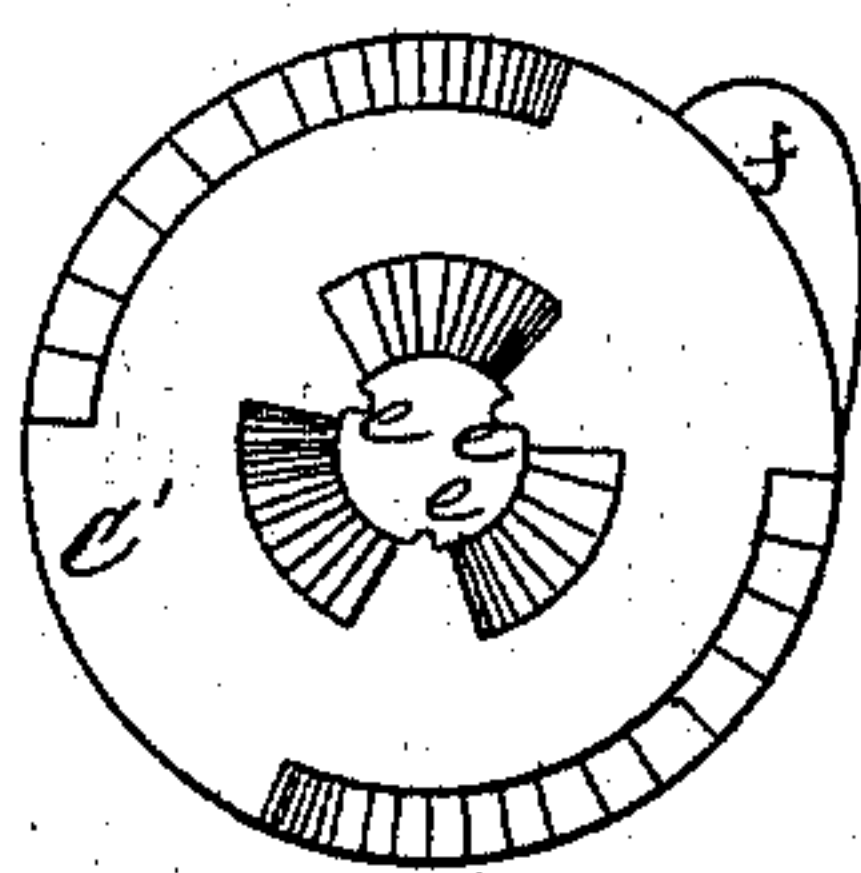


Fig. 4.



Witnesses:

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FOSTER NEVERGOLD AND DAVID BROSEY, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 68,778, dated September 10, 1867.

IMPROVEMENT IN SHAFT-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, FOSTER NEVERGOLD and DAVID BROSEY, of Pittsburg, in the State of Pennsylvania, have invented certain new and useful Improvements in Shaft-Couplings; and we do hereby declare that the following is a full, true, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a plan view.

Figures 2 and 4, plans of the contiguous sides of connecting or coupling-wheels, and

Figure 3 a plan of the hand-lever by which the shafts are thrown in or out of gear.

The nature of our invention consists in the employment and arrangement of the several devices hereinafter named for the purpose of instantaneously connecting or disconnecting the shafts of machinery, thereby obviating the strain and breakage so frequently experienced in the ordinary mode of coupling.

To enable others skilled in the art to make and use our improved coupling, we will now describe its construction and operation.

A A' represent two distinct pieces of shafting, which have their bearing in the hangers or supports (as the case may be) B B. The contiguous ends of said shafting are provided with coupling-boxes C C', the box C being fixed in a permanent manner on one piece or section of the shafting, while C' slides on the shaft, in order that the two boxes may be disconnected when desirable. *e e e*, fig. 4, are projections, which slide in slots in shaft A' for the purpose of preventing the box C' from revolving independent of its shaft. It will be observed that the coupling-box C' is provided with a circular groove, also with wedge-shaped projections *a a* and *b b*, fully shown in figs. 1 and 4. The object of these projections will be more fully seen hereafter. D represents a lever, by which the shafting may be readily coupled or uncoupled. This lever is formed as fully shown in fig. 3, and rests in the circular groove in box C'. E represents a table, which should be firmly secured to the frame which supports the shafting, or in position indicated in fig. 1. *d* is an upright block that slides in a groove in table E. The object of this block is to throw the coupling-boxes out of gear, as will be more fully explained presently. *f* represents a lever, pivoted to the front side of table E. *g* is a rod, connecting said lever to the sliding-block *d*. *h* and *k* are also levers, which are hinged together at the point *i*, fig. 1. The lever *h* is bolted loosely to the table, as fully shown in the same figure, and is operated by means of lever *k*.

The operation of our invention is as follows: The shafting is thrown in gear by the lever D. When it becomes necessary to uncouple, it may be done either by means of lever D, levers *h k*, or lever *f*; or it may be done by an automatic arrangement, as will be observed. When the lever *k* is so placed that the wedge-shaped projections *b b* will force it back, thus causing lever *h* to push the sliding-block between the coupling-boxes, then the projections *a a* will at once cause box C' to slide back, at once throwing the shafting out of gear.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of boxes C C', when both are constructed and arranged as and for the purpose set forth.
2. The combination of sliding-block *d* with levers *h k*, substantially in the manner set forth.
3. The lever *k*, in combination with coupling-block C', as and for the purpose described.
4. Coupling-box C C', sliding-block *d*, levers *h k*, and *f*, all combined as and for the purpose specified.

In testimony that we claim the above we affix our signatures in presence of two witnesses.

Witnesses:

J. DONALDSON,
F. G. KLINE.

his
FOSTER X NEVERGOLD,
mark.
DAVID BROSEY.