J. H. Blessing,

Shaft Coupling.

No. 113,728. Patented Apr. 18. 1871.

Fig. 1

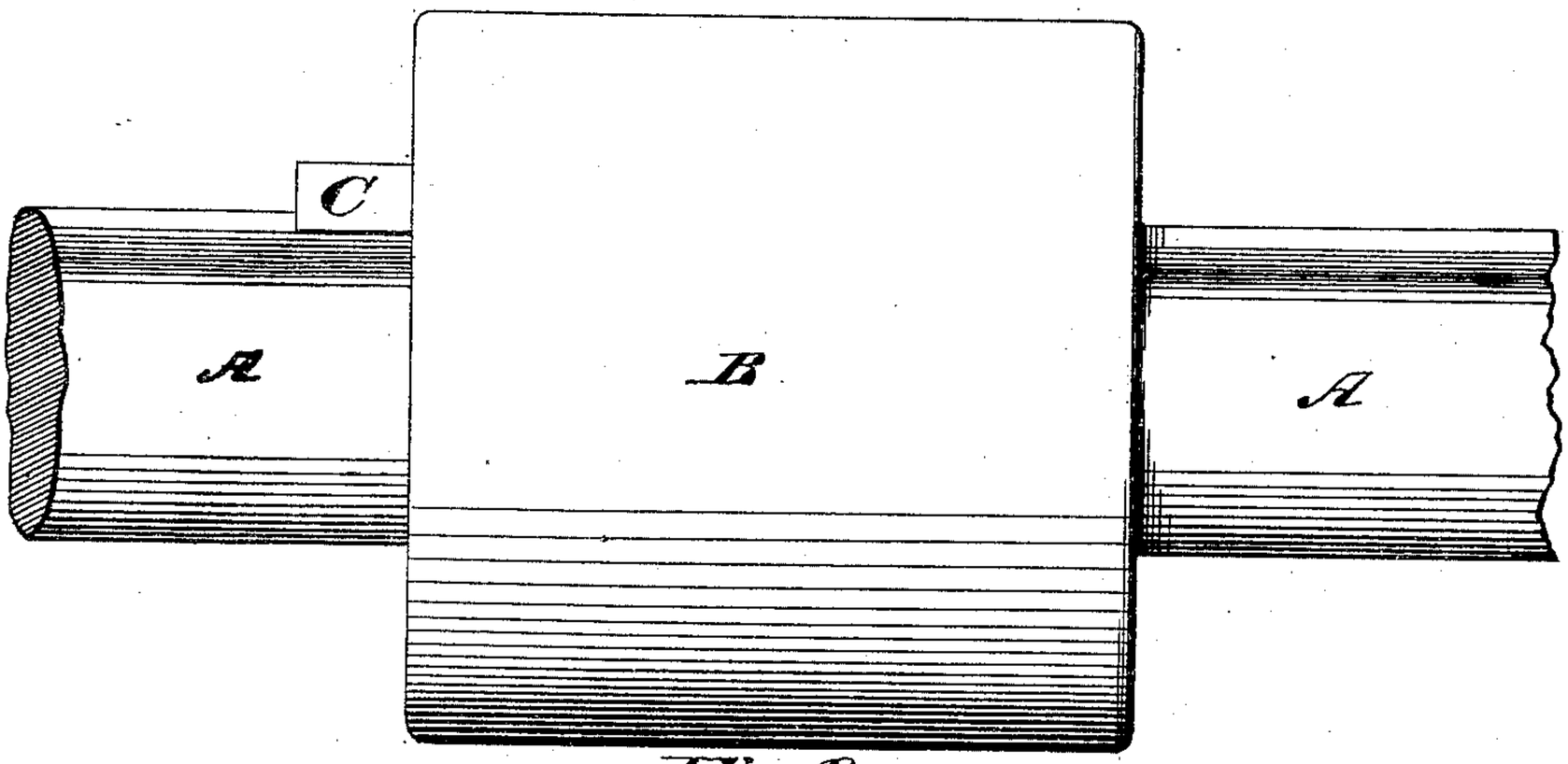


Fig. 2

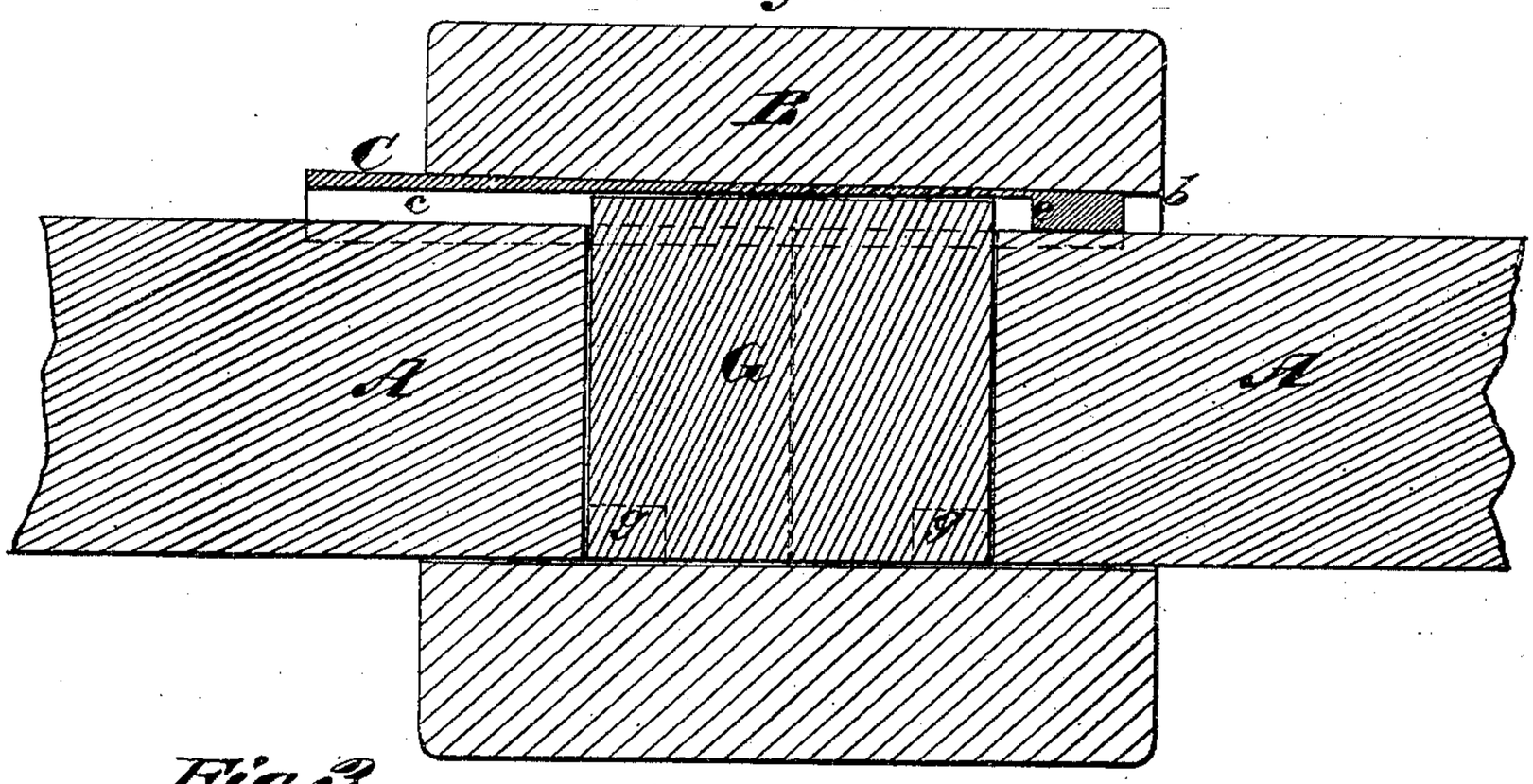


Fig. 3

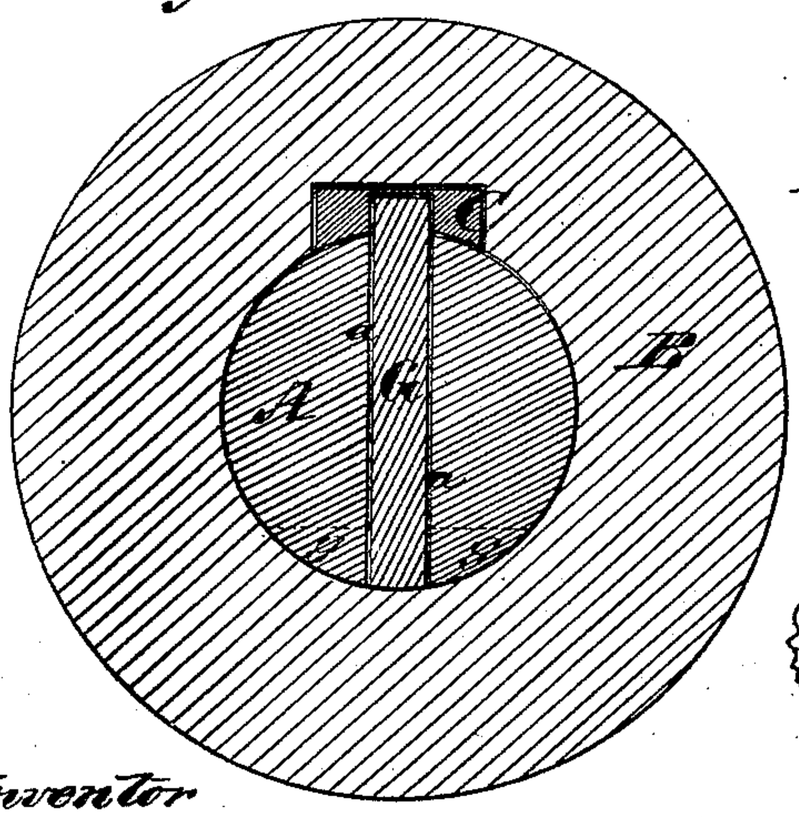


Fig 4

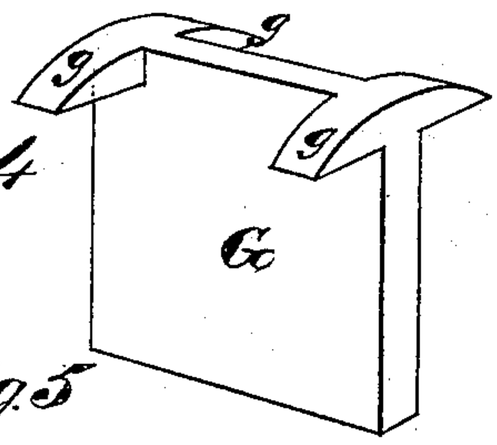
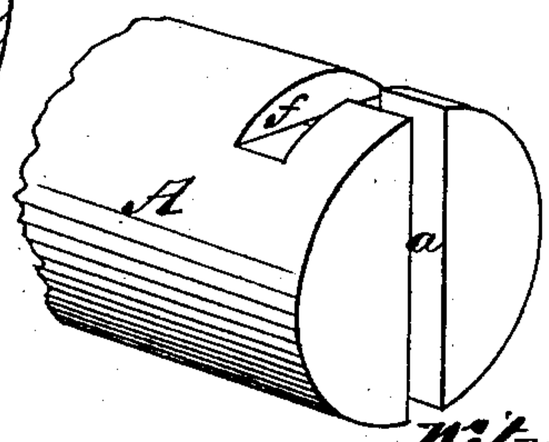


Fig 5



Inventor
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by
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JAMES H. BLESSING, OF ALBANY, NEW YORK, ASSIGNOR TO HIMSELF AND TOWNSEND & JACKSON, OF SAME PLACE.

Letters Patent No. 113,728, dated April 18, 1871.

IMPROVEMENT IN SHAFT-COUPLINGS.

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

To all whom it may concern:

Be it known that I, JAMES H. BLESSING, of Albany, in the county of Albany and State of New York, have invented a new and improved Coupling for Shafting; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side view of two sections of shafting connected together by my improved plan.

Figure 2 is a diametrical section through the same.

Figure 3 is a cross-section.

Figure 4 is a perspective view of the gib or coupling-plate.

Figure 5 is a perspective of the end of one of the shaft sections.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improved mode of connecting sections of shafting, and consists in the combination of a gib, a sleeve, and a key with shafts, the ends of which are slotted transversely at *f* and diametrically at *a*.

The transverse slots *f* intersect the diametrical slots *a* at right angles, as shown by fig. 5.

G represents a gib or coupling-plate which exactly fits into the two diametrical slots, *a a*, of the two shafts, A A, and which is constructed with segments *g g* on two of its corners on the same edge, which exactly fit into the transverse grooves *f* of the two shafts.

The plate G is wider than the diameter of the shafts A A, as shown in figs. 2 and 3, and is received into a groove, *c*, which is made longitudinally into a tapering key, C.

This plate G with its segments and projecting portion prevents the two shafts from separating longitudinally, and it prevents the shafts from being twisted at their joint under ordinary strain. The flat portion of the gib G prevents the shafts from being twisted about their axes, while the segments *g g* prevent separation of the shafts endwise.

In addition to the gib I employ a very strong sleeve, B, and a key, C.

The sleeve B is bored through centrally to receive the ends of the two shafts, A A, and this bore through the sleeve is slotted on a taper lettered *b*, to receive a key C, which confines the sleeve in place against longitudinal displacement.

The key C is slotted to receive that portion of the gib G which projects beyond the perimeters of the shafts A A, but that portion of this key which is lettered *e* is solid—that is to say, it is not slotted—consequently the key cannot be removed from its place while it is inclosed by the collar B.

The key C not only receives the projecting end of the gib G but it enters a tapering groove in the sleeve B, and when driven home prevents this sleeve from slipping from its place endwise.

It will be seen, from the above description, that when the key C is driven home the strain of torsion on the shaft will be transferred in a great measure to the collar or sleeve B, which is made strong enough to resist any strain which the solid portions of the shaft would sustain.

It will also be seen that the termination of the key-slot *c* at *e* prevents this key from being withdrawn while the sleeve B covers the end of the gib.

It will also be seen that the transverse segments *g g* on the gib G, when fitted into the transverse grooves *f f* in the ends of the two abutting shafts, A A, will prevent these shafts from endwise movement.

Having described my invention,

What I claim as new is—

A shaft-coupling consisting of a gib, G, a slotted key, C, and a sleeve, B, applied to shaft-sections, and constructed substantially as described.

JAMES H. BLESSING.

Witnesses:

A. P. STEVENS,

J. A. REED.