W. S. McKinney,

Shaft Coupling.

No. 92,860. Patented July 20. 1869.

Fig. 1.

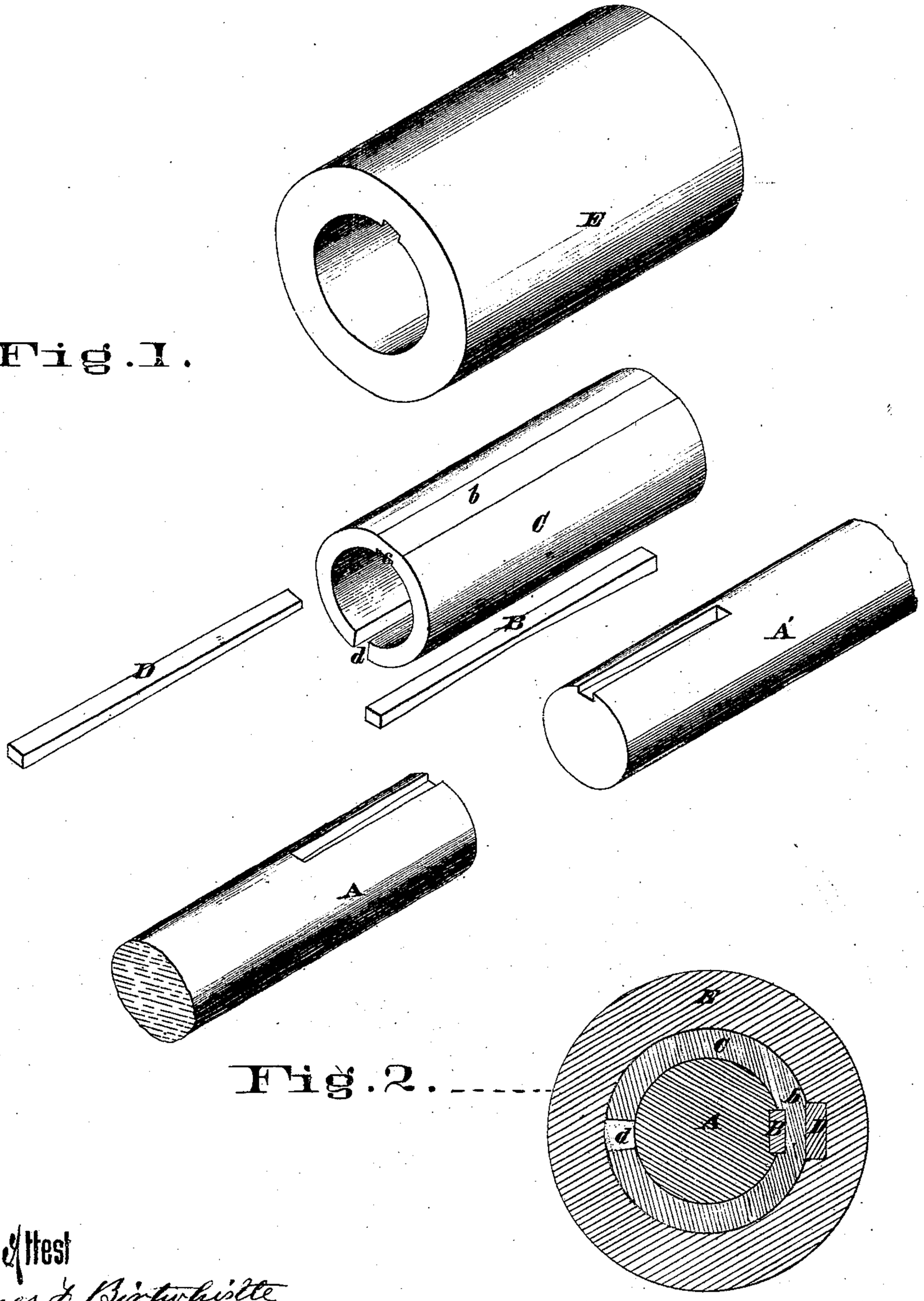

Fig. 2.

Attest

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WILLIAM S. McKINNEY, OF CINCINNATI, OHIO.

Letters Patent No. 92,860, *dated July* 20, 1869.

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 I, WILLIAM S. McKINNEY, of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Shaft-Couplings; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof, to enable one skilled in the art to which my invention appertains, to make and use it, reference being had to the accompanying drawings, making part of this specification.

My invention consists, in combination with certain devices, of a cylindrical split bushing, which, by forcible contraction in size, tightly embraces the ends of the shafts to be coupled.

In the accompanying drawings—

Figure 1 is a perspective view of the several pieces of the coupling detached.

Figure 2 is a cross-section of the coupling together, and in place on the shafting.

A A′ are the ends of the shafts to be coupled, which have key-seats cut, as shown, for the reception of the key B.

I prefer to use the "double-draught" key B for this connection, as shown in the accompanying drawings, and also shown in my Letters Patent for "shaft-coupling," December 29, 1868.

The bushing C is designed to fit the ends of the shafts A A′, extending equally over the ends from the point where the shafts meet.

The interior of the bushing is slightly "key-seated" at *c* to fit the top of the key B, and is flattened on top at *b* to form a seat for key D.

The bushing C is cut or split at *d*, to allow of it being contracted in size, the cut being of sufficient width to permit the necessary contraction.

The sleeve E fits snugly over the split bushing C, and is key-seated to receive the key D.

The key D, when the other pieces of the coupling are in place, is driven tightly in between the outer sleeve E and inner bushing C, and being taper, as shown, serves to contract the size of the bushing C, and compel it to closely embrace the ends of the shafts A A′.

When the key B is constructed in the form preferred, it is impossible for the shafts to be drawn from the coupling endwise.

I am aware that couplings have been used in which the inner sleeve or bushing is split or cut, and made to contract in size, by being forced endwise within an outer sleeve, the exterior of the inner bushing and the interior of the outer sleeve being respectively turned and bored tapering and made to fit.

This is a complicated construction, inasmuch as it requires screw-threaded devices, accompanied by excessive friction, to contract the bushing.

I claim herein as new, and of my invention—

The cylindrical split bushing C, in the described combination with the sleeve E and keys B D, constructed and operating substantially in the manner and for the purpose set forth.

In testimony of which invention, I hereunto set my hand.

WM. S. McKINNEY.

Witnesses:

THEO. H. JAMES,

CHARLES PICKLES.