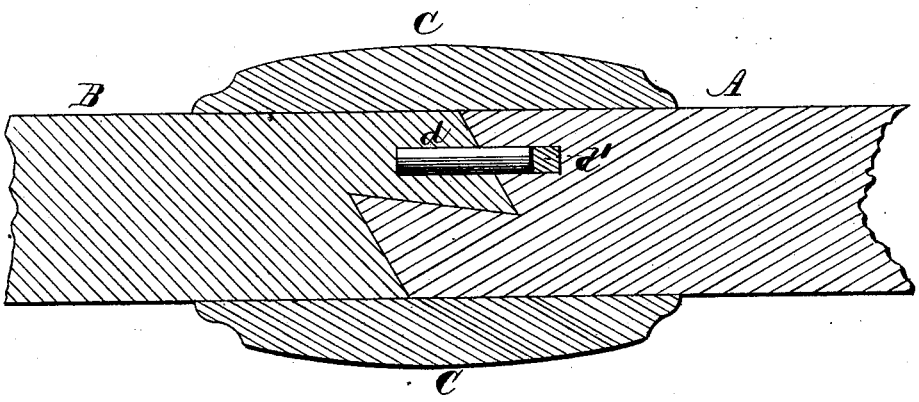
P. B. WEEKS & M. METCALF.

Shaft-Coupling.

No. 163,558. Patented May 18, 1875.



WITNESSES

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UNITED STATES PATENT OFFICE.

PLATT B. WEEKS AND MARTIN METCALF, OF BATTLE CREEK, MICHIGAN.

IMPROVEMENT IN SHAFT-COUPLINGS.

Specification forming part of Letters Patent No. **163,558**, dated May 18, 1875; application filed April 16, 1875.

To all whom it may concern:

Be it known that we, PLATT B. WEEKS and MARTIN METCALF, of Battle Creek, in the county of Calhoun and in the State of Michigan, have invented certain new and useful Improvements in Shaft-Couplings; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in making shaft-couplings by forming dovetails and dovetail-grooves in the two parts of the shaft to be connected, and using a dowel-pin and a smooth sleeve with the same, as will be hereinafter set forth.

In the accompanying drawing, making a part of these specifications, the figure represents a longitudinal section.

In the figure, A and B represent the two ends of the shaft to be coupled together, each part being divided equally, and provided with a dovetail and a dovetail-groove, the grooves being made of sufficient depth, the dovetail corresponding, so that when placed together they will fit snugly and make a continuous shaft, as is represented in the drawing. The dowel-pin *d* passes from the dovetail on one side to the dovetail-groove on the other. In said latter groove is inserted a small spring, *d'*, of rubber or of metal.

The object of the dowel-pin and spring is to hold the coupling in place, and they act, in combination with the inclined planes or dovetails on the ends of the shafts, so as to bind the coupling or sleeve on the shaft.

To couple the shaft it is necessary to forcibly press the two parts thereof endwise toward each other. This causes a compression of the spring, and allows the sleeve to slip over the ends of the shaft. By releasing the shafts the spring and dowel-pin act in an opposite direction, and firmly hold the sleeve in place.

It will be seen that the dowel-pin not only acts as a guide, but greatly assists in giving strength and stability to the coupling.

C represents a sliding sleeve, which passes over this joint, and holds the parts securely together. To uncouple this shaft it is only necessary to slide this sleeve off of the joint, and then remove the two parts.

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

The combination of the shaft-sections A and B, each made with dovetails on its end, as shown, the dowel-pin *d*, the spring *d'*, and the smooth sleeve C, all constructed substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 2d day of April, 1875.

PLATT B. WEEKS.
MARTIN METCALF.

Witnesses:
C. L. EVERT,
WM. A. SKINKLE.