

P. SWEENEY.  
Journals for Shafts and Axles.

No. 199,121.

Patented Jan. 8, 1878.

Fig. 1.

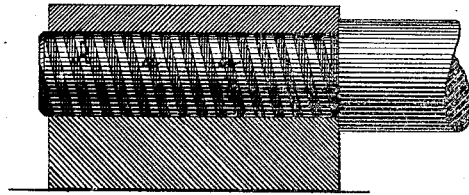
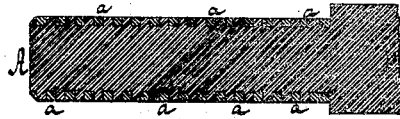


Fig. 2.



Witnesses  
Otto Schifeland  
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his attorneys

# UNITED STATES PATENT OFFICE.

PETER SWEENEY, OF NEW YORK, N. Y.

## IMPROVEMENT IN JOURNALS FOR SHAFTS AND AXLES.

Specification forming part of Letters Patent No. 199,121, dated January 8, 1878; application filed May 24, 1877.

*To all whom it may concern:*

Be it known that I, PETER SWEENEY, of the city, county, and State of New York, have invented a new and useful Improvement in Journals for Shafts and Axles, which improvement is fully set forth in the following specification.

This invention relates to certain improvements in the construction of journal-bearings, its object being to provide for the employment of a solid dry lubricant in connection with such journal-bearing, in such manner that the entire bearing-surfaces will be equally and constantly subjected to the action of the lubricant, thus dispensing with the frequent applications necessary with the ordinary lubricants.

To this end my invention consists in the combination, with a carriage axle, shaft, or journal-bearing, provided with a continuous spiral groove, extending from the shoulder to the extremity of the same, of a solid dry lubricant, consisting of a compound of plumbago and collodion, packed into said groove, and allowed to dry therein, whereby it becomes firmly fixed in place, and is equally and continuously supplied to the bearing-surfaces as they work in contact with each other.

In the drawings, Figure 1 represents a side view of my improved journal, and Fig. 2 a sectional view thereof.

The letter A represents a journal, and *a* a continuous spiral groove formed upon the same, extending from the shoulder to the extremity of the said journal. The depth and width of

said groove depend upon the diameter of the journal. For instance, in journals of the size shown in the drawings the depth and width of said grooves may be about one-eighth of an inch, with a pitch of about one-eighth of an inch. The groove as thus formed is filled with a dry lubricant, consisting of plumbago and collodion, which is filled and packed into the groove while in a plastic condition, and allowed to dry therein, whereby it becomes firmly embedded in said groove, the surface of said lubricant, by reason of the spiral form of the groove, being constantly exposed to the entire bearing-surface working in contact with it, so as to constantly and continuously lubricate the bearing-surfaces as long as the lubricant lasts, thus dispensing with the frequent renewals necessary when other lubricants are employed, and obviating the constant attention consequent upon their use.

What I claim, and desire to secure by Letters Patent, is—

A journal having a continuous spiral groove extending around it from its extremity to its shoulder, said groove being filled with a solid dry lubricant, consisting of plumbago and collodion, packed in the groove while in a plastic state, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of May, 1877.

PETER SWEENEY.

Witnesses:

W. HAUFF,  
E. F. KASTENHUBER.