G. W. SWEENEY.

JOURNAL-BOX.

No. 191,489. Patented May 29, 1877.

Fig.1

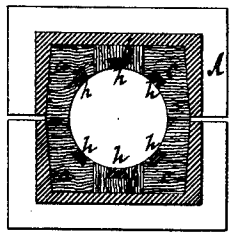


Fig.2.

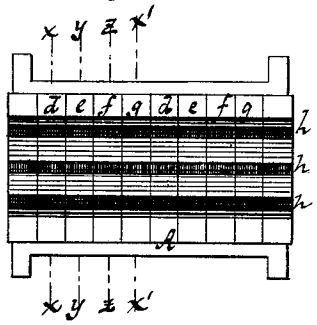


Fig.3.

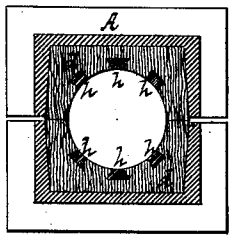


Fig.4.

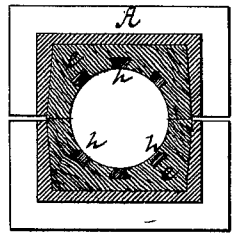


Fig.5.

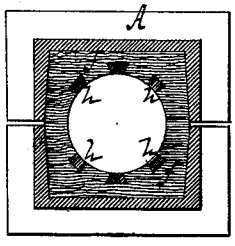
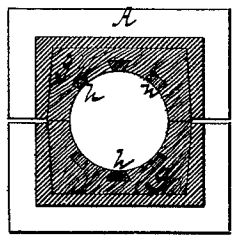


Fig.6.



Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN JOURNAL-BOXES.

Specification forming part of Letters Patent No. **191,489**, dated May 29, 1877; application filed November 25, 1876.

To all whom it may concern:

Be it known that I, GEORGE W. SWEENEY, of the city, county, and State of New York, have invented a new and useful Improvement in Journal-Boxes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a transverse section of a journal-box constructed according to my invention. Fig. 2 is a modification of the same. Figs. 3, 4, 5, and 6 are transverse sections, respectively, in the planes $x\,x$, $y\,y$, $z\,z$, $x'\,x'$, Fig. 2.

Similar letters indicate corresponding parts.

This invention relates to a journal-box which is lined with wood, the pieces of wood which compose this lining being preferably so arranged that the bearing-surface of the box is formed by the end grains of the pieces of wood which compose the lining, or nearly so, said lining being provided with recesses—one or more—for the reception of a lubricating compound of graphite and collodion, or any other lubricating compound of a similar nature, whereby the box is rendered self-lubricating, thereby producing a journal-box which will wear uniformly throughout, and which can be used with great advantage for all classes of machinery.

In the drawing, the letter A designates a journal-box which is provided with a lining of wood. In the example shown in Fig. 1 this lining is composed of pieces of wood *a b c*, which are so placed that the grains of the pieces *a* and *c* run at right angles toward the grains of the pieces *b*, and, consequently, the bearing-surface of the box is formed by the end grains of the pieces of wood composing the lining. The same result is obtained by arranging the lining in the manner shown in Figs. 2 to 6, inclusive. In this case the lining is composed of a series of pieces of wood, *d*, *e*, *f*, *g*, &c., which are so placed that the grains of the pieces *d* run in a vertical direction, as shown in Fig. 3, the grains of the pieces *e* in a diagonal direction, as shown in Fig. 4, the grains of the pieces *f* in a horizontal direction, as shown in Fig. 5, and the grains of the pieces *g* in a diagonal direction, at right angles to the direction of the grains of the pieces *e*. (See Fig. 6.) The pieces *d*, *e*, *f*, and *g*, which are used in forming this lining, are intended to be of small thickness, so that a large number of such pieces is required to form the entire lining, and by arranging these pieces as above stated it will be seen that the largest portion of the bearing-surface of the box is formed by the end grains of the pieces of wood which compose the lining.

In the lining of my box are formed suitable recesses *h*, preferably of a dovetailed form, which are filled with a lubricating compound of graphite and collodion, or with any other equivalent dry lubricator, so that when the journal revolves in the box the end grains of the wood lining will soon become coated with the lubricating compound, and a journal-box is obtained which requires no oil, and which will not be liable to heat, even if the journal is revolved with great speed.

My journal-box can be made with comparatively little expense, and it is not liable to wear uneven, since its bearing-surface is composed of the end grains of the wood, which, when coated with a suitable lubricating compound, will not wear.

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

A journal-box the bearing-surface of which is formed by the end grains of the pieces of wood which compose its lining, and which is provided with recesses *h*—one or more—for the reception of a dry lubricating compound, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 16th day of November, 1876.

GEORGE W. SWEENEY. [L. S.]

Witnesses:

E. F. KASTENHUBER,

ROBT. E. MILLER.