

W. GRINSTED.
Strap-Fastenings for Trunks, &c.
No. 142,565. Patented September 9, 1873.

Fig 1

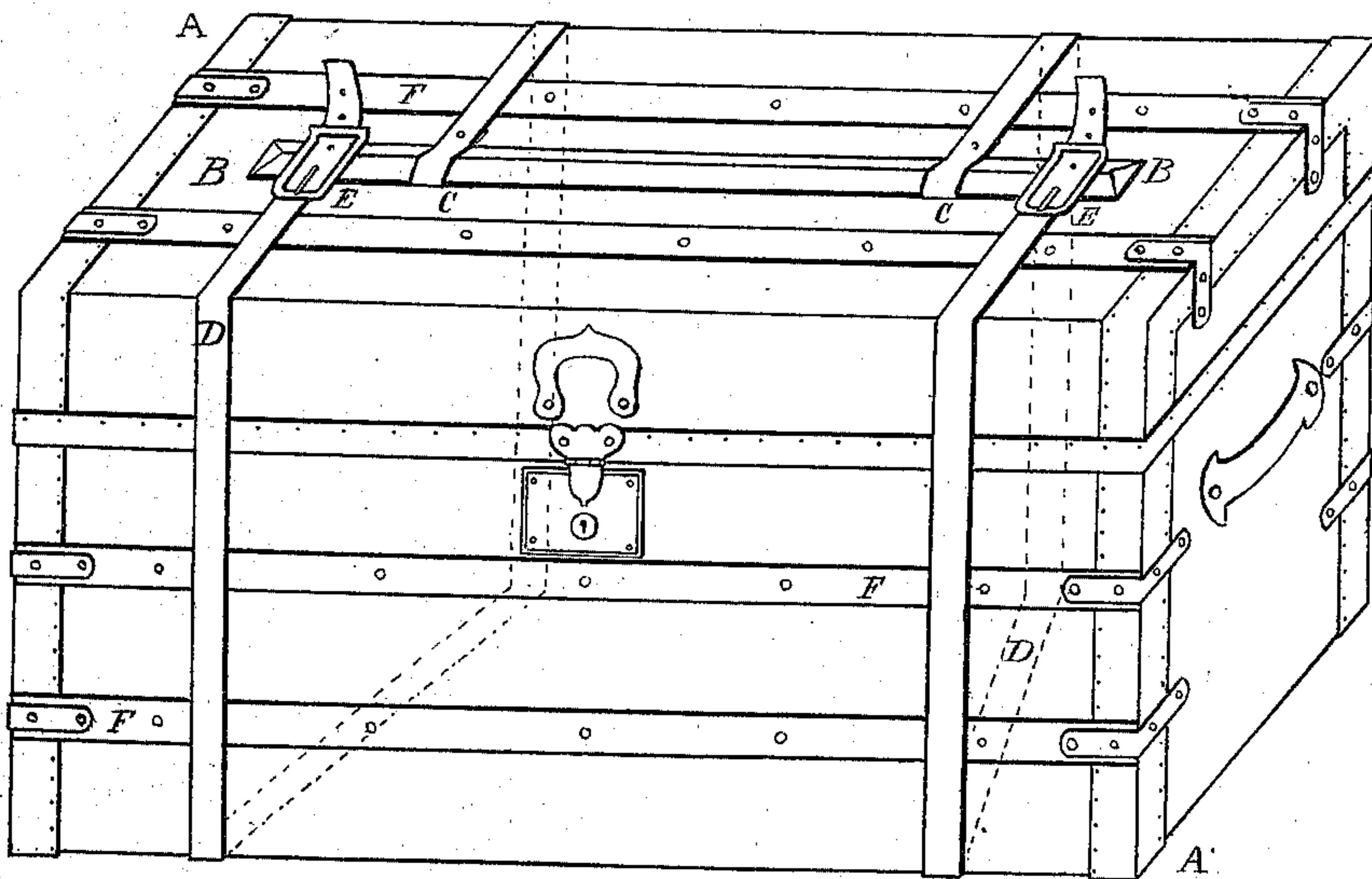
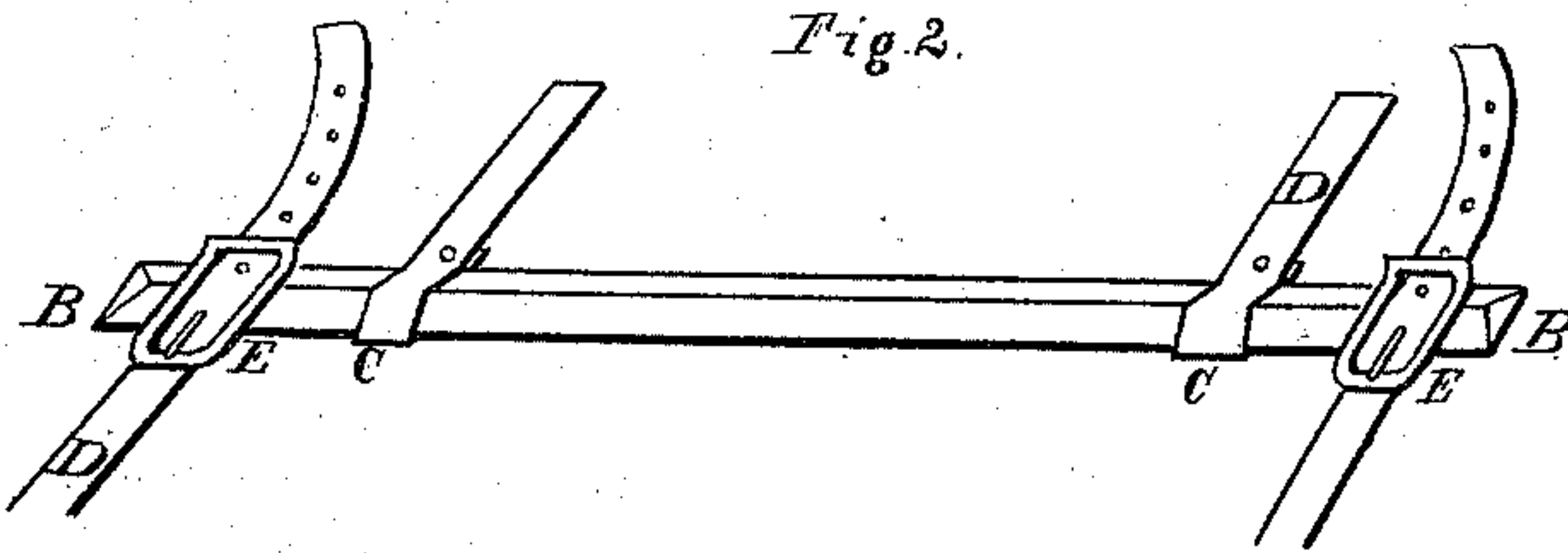


Fig 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM GRINSTED, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN STRAP-FASTENINGS FOR TRUNKS, &c.

Specification forming part of Letters Patent No. **142,565**, dated September 9, 1873; application filed February 4, 1873.

To all whom it may concern:

Be it known that I, WILLIAM GRINSTED, of Washington city, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in the Fastening of Trunks, Boxes, Bales, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and to the letters of reference marked thereon which form a part of this specification.

My invention consists in a double-acting lever for fastening trunks, boxes, bales, or packages of any description.

Of the accompanying drawings, Figure 1 represents a side and end elevation of a trunk with the fastening *in situ*. Fig. 2 is a view of the double-acting lever with its straps attached.

Corresponding letters indicate corresponding features of the invention.

In Fig. 1, A A represent a flat-topped trunk with the lid closed, upon which rests the lever B B, to which are attached, at C C, the straps D D having their ends free. These straps pass round the trunk, as shown by the dotted lines, meeting the lever at E E, at which points it has buckles attached to it, through which the ends of the straps are passed and secured. It will readily be seen that, when one end of the strap is tightened, great purchase or leverage will be afforded at the other end, and thus great compression may be brought to bear upon the lid of the trunk, such power being limited only by the endurance of the straps. The bar or lever may be pivoted, if necessary, upon the top of the trunk, and the straps may be either free or secured in their course round the trunk by

cleats; or they may pass in suitable grooves or recesses under the wooden or metal bands F F, which re-enforce the trunk.

I do not limit myself to this simple method of construction, as the bar may be made of any suitable material, such as wood, metal, &c., or of any convenient shape, such, for instance, as would adapt itself to the curves of a trunk with an arched lid; while the straps could be made wholly of leather, rubber, or any other yielding or elastic material, or partly of these materials and partly of more rigid substances, such as metal, wood, &c.

The number of straps may also be increased at pleasure, having their points of attachment at different places along the lever. A series of bars with their accompanying straps may be used, in combination or separately, where greater protection is required; and the device may be strapped transversely across the ends of the trunk, or in any position which may be deemed advisable.

While, for the purpose of more clear demonstration, I have selected an ordinary trunk to illustrate my device, I do not limit myself to this simple application of it, as it can be used with advantage to secure and fasten any bale, box, package, or parcel whatsoever.

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

The lever B, in combination with the straps D D, attached at C C, and the buckles attached at E E, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

WM. GRINSTED, M. D.

Witnesses:

JOHN MAYHEW,
WM. MARTIN.