

(No Model)

J. W. OLIVER.

OILSTONE BOX.

No. 582,544.

Patented May 11, 1897.

Fig. 1.

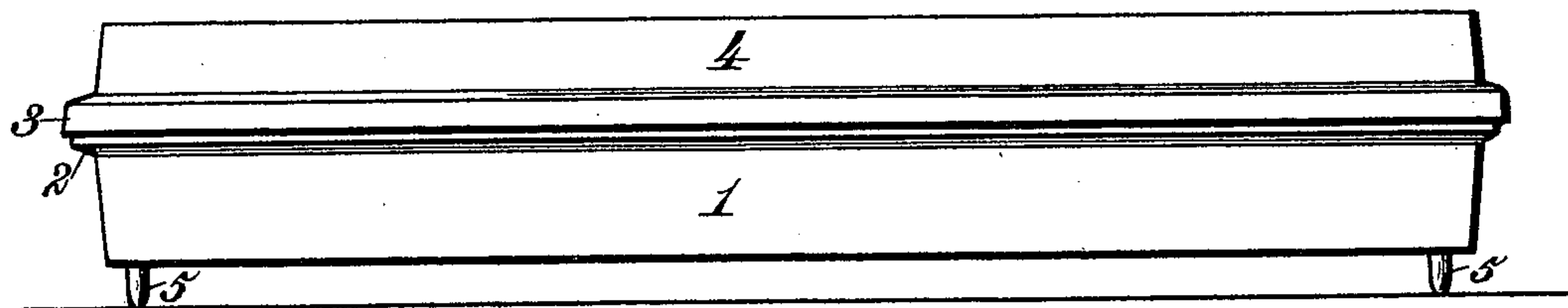


Fig. 2.

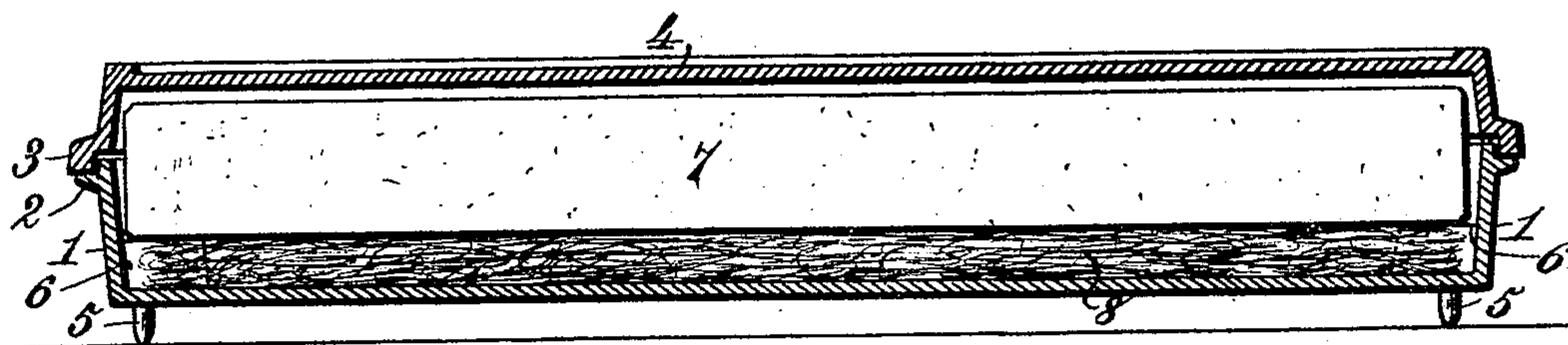
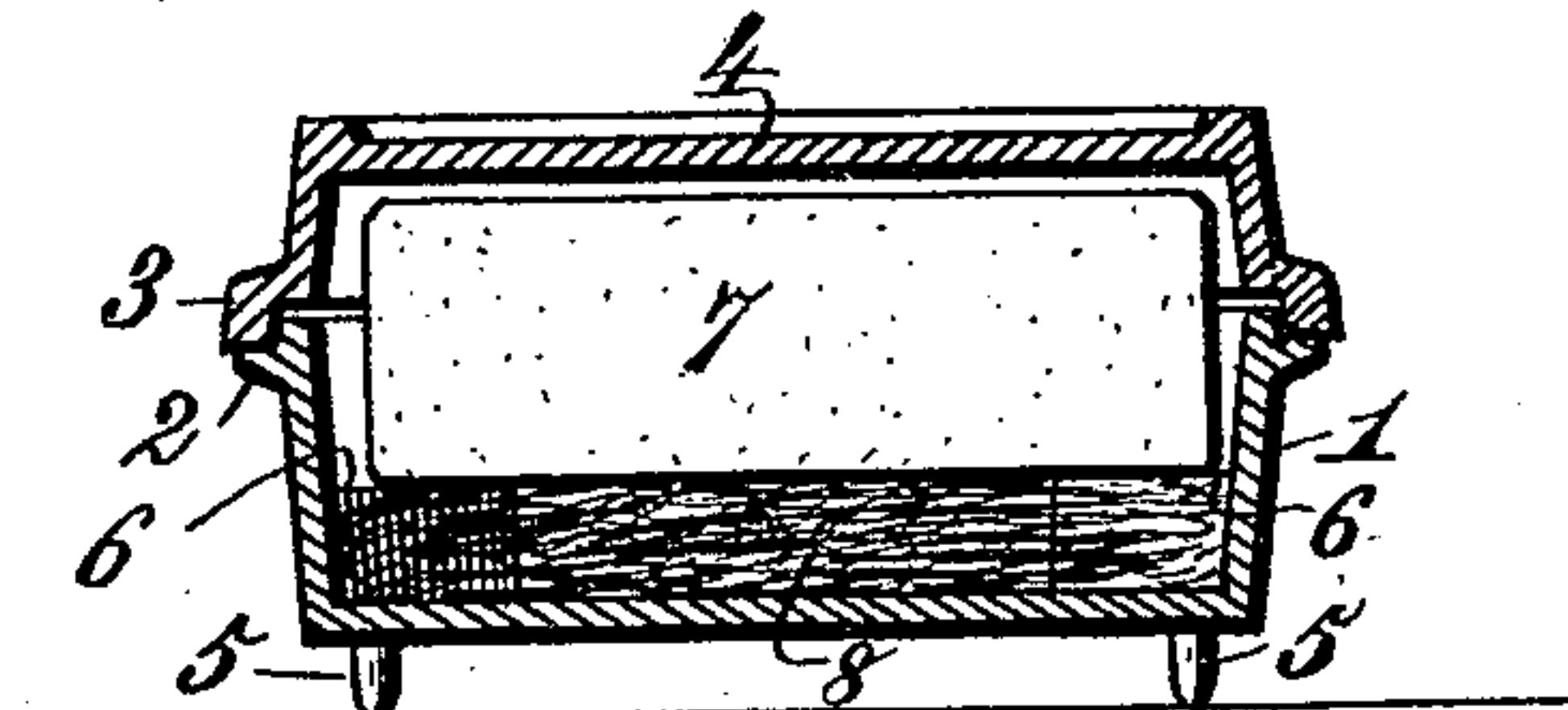


Fig. 3.



Witnesses:
Robert Everett.
Geo. W. Rea.

Inventor:
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By James L. Norris.
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UNITED STATES PATENT OFFICE.

JOSEPH W. OLIVER, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
THE DETROIT EMERY WHEEL COMPANY, OF SAME PLACE.

OILSTONE-BOX.

SPECIFICATION forming part of Letters Patent No. 582,544, dated May 11, 1897.

Application filed March 8, 1897. Serial No. 626,523. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. OLIVER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Oilstone-Boxes, of which the following is a specification.

This invention relates to that class of oilstone-boxes wherein the stone is supported above the box-bottom and is supplied with oil from time to time by pouring it upon the upper or whetting surface thereof.

The objects of my present invention are to improve oilstone-boxes of the class referred to, to avoid the necessity of pouring the oil upon the stone, and to supply the upper or whetting surface with the lubricant by capillary attraction.

To accomplish these objects, my invention consists, essentially, in the combination, with an oilstone box or holder and an oilstone supported above the level of the box-bottom to provide an oil chamber or space under the stone, of an absorbent material arranged in the oil chamber or space and having contact with the under side of the stone for the purpose of conveying the oil or lubricating substance to the stone, which, by capillary attraction, causes the oil or lubricating substance to pass to and properly supply the oil to the upper or whetting surface of the stone.

The invention is illustrated by the accompanying drawings, in which—

Figure 1 is a side elevation of an oilstone-box embodying my invention. Fig. 2 is a longitudinal vertical sectional view of the same, and Fig. 3 is a transverse sectional view.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicates the rectangular box-body, having a marginal surrounding flange or rim 2, upon which is adapted to rest the marginal surrounding flange or rim 3 of the box-cover 4, which latter is of substantially the same shape as the box-body.

The box as a whole is preferably made of cast metal in two approximately equal longi-

tudinal parts to provide the box-body and the box-cover.

The bottom wall of the box-body is preferably formed integral or otherwise provided with feet 5, arranged at the corners for the purpose of supporting the box slightly above the surface of the bench or table on which the device is placed for use in sharpening or whetting the cutting instruments or tools.

The box is constructed internally at its corner portions with ledges or shoulders 6, arranged slightly above the level of the box-bottom in such manner that they will support the oil or whet stone 7 above the level of the box-bottom and cause the upper or whetting surface of the stone to lie above the marginal flange 2 of the box-body, so that the latter will not interfere with the operator or workman in sharpening or whetting the cutting instruments or tools.

The arrangement of the oil or whet stone in the manner described provides an oil chamber or space under the stone, and in this chamber or space is placed a comparatively large body of absorbent material 8, preferably wicking or strands of fibrous or textile material, which will serve to conduct oil or lubricating material from the oil chamber or space to the under surface of the oil or whet stone. The oil to lubricate the stone is placed in the oil chamber or space to thoroughly saturate the absorbent material or wicking, and since the under surface of the stone is in contact with the absorbent material or wicking the latter will convey the oil or lubricating material to the undersurface of the stone, so that by capillary attraction the oil or lubricating material will pass through the body of the stone to the upper or whetting surface thereof. By this means the upper or whetting surface of the stone is continually supplied with the requisite quantity of lubricating material without the necessity of the operator or workman pouring oil from time to time from a bottle or can upon the upper surface of the stone. The supply of oil to the stone by capillary attraction causes the oil to be uniformly distributed throughout the stone, which is advantageous over pouring the oil upon the stone in drops or otherwise, as when this is

done it is essential for the oil to be spread more or less over the surface of the stone, so that the latter will be effective in the sharpening or whetting operation.

5 The oilstone is preferably composed of a composition of emery molded or shaped into a rectangular block, as the emery composition is more effective in distributing the oil by capillary attraction. The stone, however,
10 may be of any material ordinarily employed in oil or whet stones.

Any desired quantity of oil or lubricating material can be placed in the oil chamber or space beneath the oilstone, so that the supply will last a considerable time and the stone
15 will be prepared for the sharpening or whetting operation without frequent supplies of small quantities of oil to the whetting-surface.

20 The absorbent material in the oil chamber or space may be any porous substance which

will become saturated and carry the oil or lubricating material to the under surface of the oil or whet stone.

Having thus described my invention, what 25 I claim is—

The combination with an oilstone-box, and an oilstone supported above the box-bottom to provide an oil chamber or space thereunder, of absorbent material arranged in said 30 oil chamber or space and serving to conduct the oil or lubricating material to the under surface of the stone whereby the upper or whetting surface thereof is supplied by capillary attraction, substantially as described. 35

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH W. OLIVER.

Witnesses:

WM. B. JACKSON,
JOHN E. MORE.