

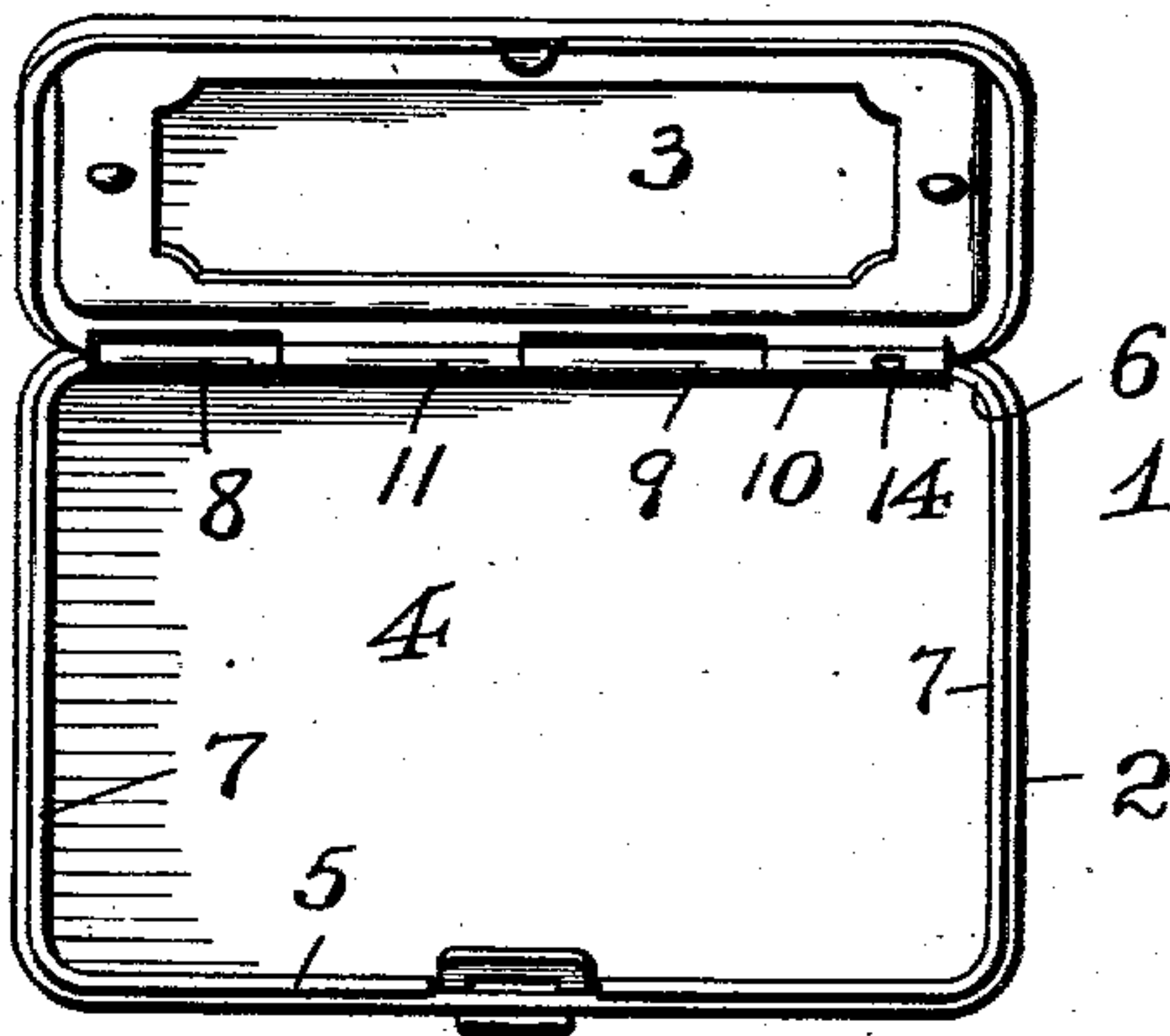
No. 753,381.

PATENTED MAR. 1, 1904.

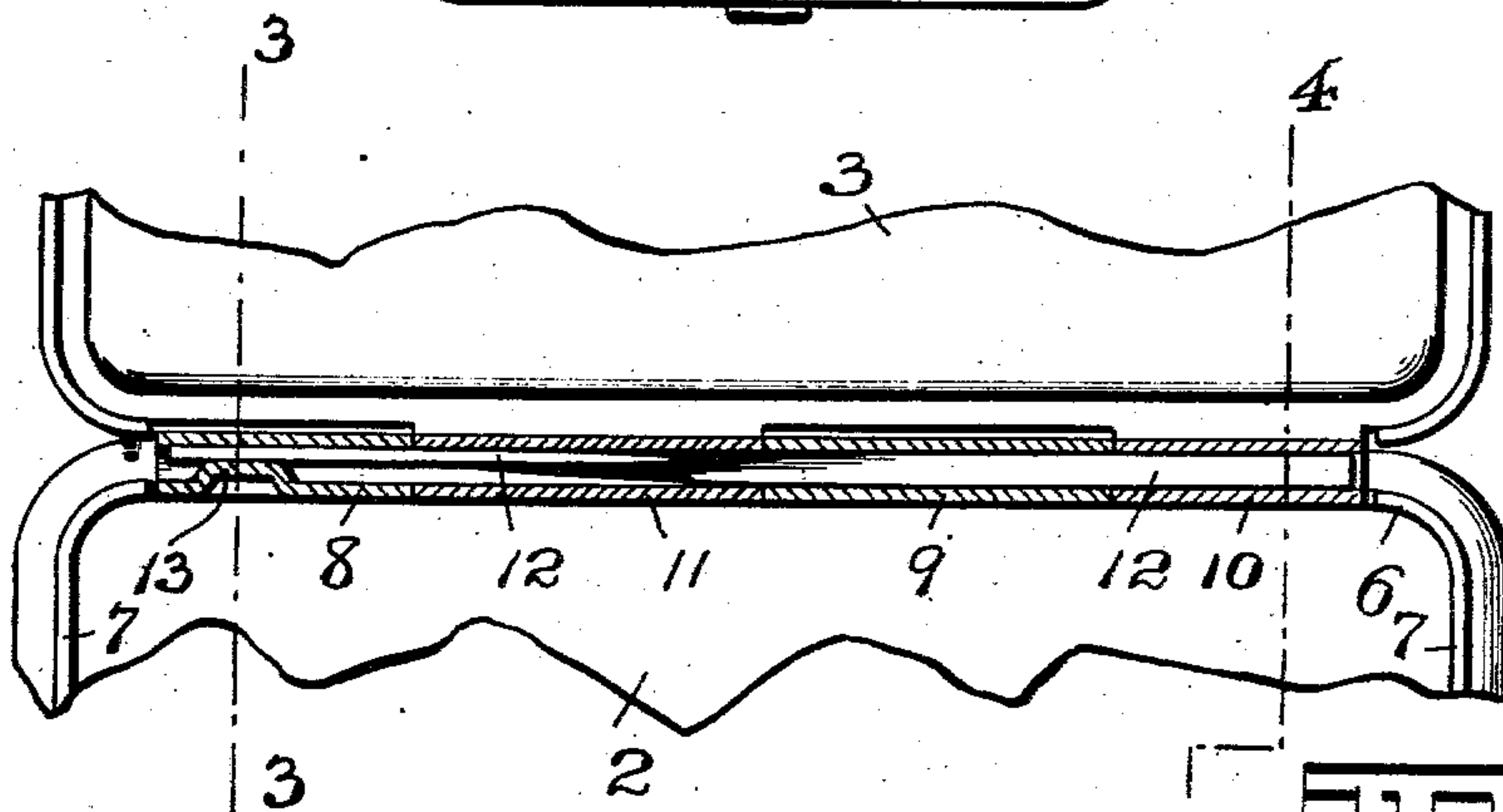
B. VOM EIGEN.
BOX.

APPLICATION FILED OCT. 30, 1903.

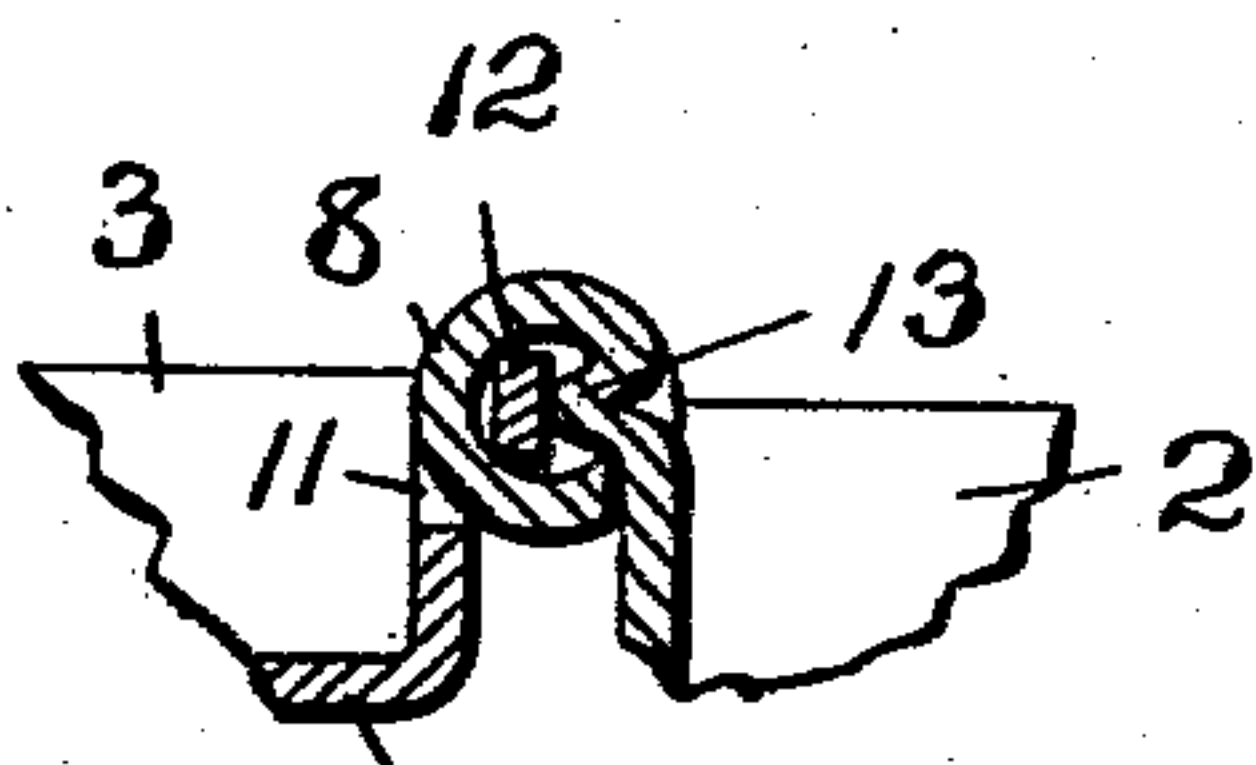
MODEL.



510



519.2



3

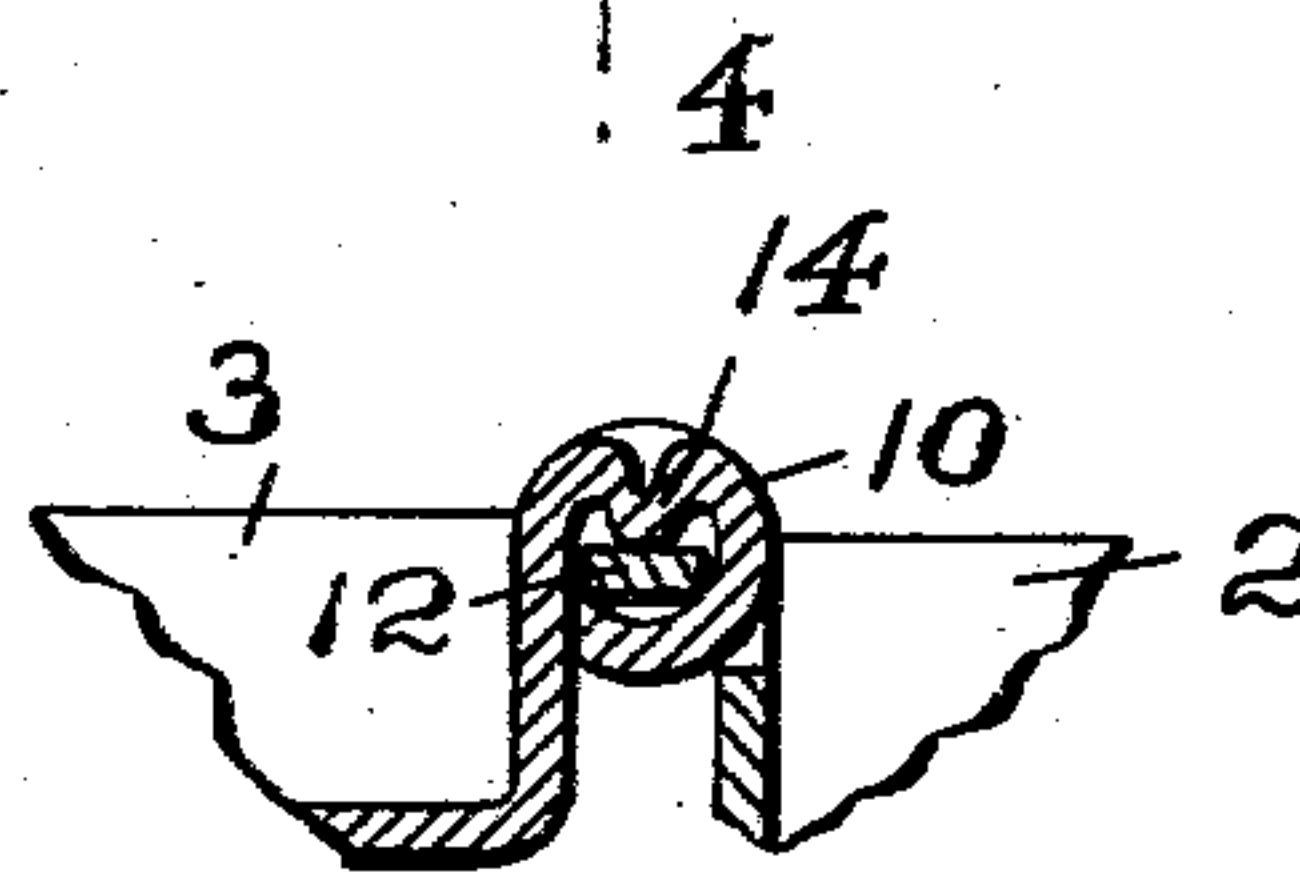


FIG. 4



WITNESSES:

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AG. 5

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UNITED STATES PATENT OFFICE.

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BOX.

SPECIFICATION forming part of Letters Patent No. 753,381, dated March 1, 1904.

Application filed October 30, 1903. Serial No. 179,147. (Model.)

To all whom it may concern:

Be it known that I, BENNO VOM EIGEN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
 10 pertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

The present invention has reference to im-
 15 provements in match and other similar boxes; and the invention has for its principal object to provide a novel hinge connection between the body of the box and its lid or cover, whereby when the lid or cover of the box is in its
 20 normal open position it will stand at right angles, or nearly so, to the plane of the body of the box, but can be turned farther back to lie in a plane parallel with the said plane of the body of the box without detriment or
 25 weakening of the spring employed with the hinge connection between the said body of the box and its lid or cover.

My present invention consists in the various arrangements and combinations of parts, all
 30 of which will be described in detail in the following specification, and then finally embodied in the clauses of the claim, which are appended to and form an essential part of the said specification.

35 The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a match or other box provided with a hinge connection embodying the principles of the present inven-
 40 tion, with the lid of the box represented in its open relation to the body of the box. Fig. 2 is a horizontal sectional representation, on an enlarged scale, of the hinge connection between the body and lid of the box. Fig. 3 is a vertical
 45 cross-section taken on line 3 3 in said Fig. 2. Fig. 4 is a similar cross-section taken on line 4 4 in the said figure; and Fig. 5 is a perspective view of the spring employed with the hinge connection represented in said Figs. 2, 3,
 50 and 4.

Similar characters of reference are employed in the above-described views to indicate corresponding parts.

Referring now to the said drawings, the reference character 1 indicates the complete
 55 match or other box, and the same comprises a body 2 and a lid 3, both of which are made from sheet metal. The said body 2, as will be seen from the several figures of the drawings, is preferably of a rectangular configura-
 60 tion, but the general contour of the box is not essential, and the said body comprises a base 4 and its surrounding side portions, which form a front 5, a back 6, and the ends 7, all of which are preferably integrally united by
 65 being struck up or formed in any suitable manner from a single piece of metal.

The back of the body 2 is made with a pair of upwardly-extending ears or curled hinge
 70 portions 8 and 9, and the lid or cover 3 is in like manner made at its rear edge with a pair of downwardly-extending ears or curled hinge portions 10 and 11, registering with the ears or curled hinge portions 8 and 9 in the manner
 75 represented in Figs. 1 and 2 of the drawings. Within the said ears or curled hinge portions 8, 9, 10, and 11 I have arranged a flat rod or bar 12, made from spring metal, the said rod or bar 12, when the lid or cover 3 stands in its open
 80 position at right angles, or approximately so, to the plane of the base of the body 2, being in its normally untwisted condition indicated in Fig. 5 of the drawings, and the ends of said rod or bar 12 being held against displacement
 85 by means of suitable indented portions 13 and 14, formed, respectively, in the ear or curled portion 8 of the body 2 and in the ear or curled portion 10 of the lid or cover 3, thereby providing the said ears or curled
 90 portions on their interior with inwardly-extending projections. The result of this arrangement is that when the lid or cover 3 is held in its closed relation with the body of the box or when it is forced into its open relation at an angle beyond that of the right-angled re-
 95 lation to the plane of the body of the box the said bar or rod 12 receives a twist, as indicated in Figs. 2, 3, and 4 of the drawings, and the normal tendency of the said rod or bar 12 being to assume its untwisted position the said
 100

lid or cover 3 will stand at right angles, or approximately so, to the plane of the body of the box when released from its closed position with the said body, or when the said lid
5 or cover is not held by the operator in a position beyond the said right-angled relation of the said lid or cover to the said body of the box.

10 From the previous description of my invention it will be seen that I have devised a simply-constructed hinge connection the parts of which can easily be assembled and in which the use of a coiled spring is avoided, such springs being weak in operation and often
15 producing a poor hinge connection, which is subject to lost motion and imperfect action.

I am aware that some changes may be made in the several arrangements and combinations of the parts without departing from the scope
20 of this invention. Hence I do not limit my invention to the exact arrangements and combinations of the parts as described in the foregoing specification and as illustrated in the accompanying drawings, nor do I confine my-
25 self to the exact details of the construction of the said parts.

Having thus described my invention, what I claim is—

1. In a box, the combination, with the body
30 of the box and its cover, the said body and cover being each provided with curled hinge members which register with each other, of a flat spring-bar arranged in said hinge members forming the pintle, and means connected
35 with some of said hinge members for producing a twisted arrangement of the said spring-bar when the said cover is closed upon the body of the box, substantially as and for the purposes set forth.

40 2. In a box, the combination, with the body

of the box and its cover, the said body and cover being each provided with curled hinge members which register with each other, of a flat spring-bar arranged in said hinge members forming the pintle, and means connected
45 with some of said hinge members for producing a twisted arrangement of the said spring-bar when the said cover is closed upon the body of the box and also when the lid is arranged in its open position beyond a plane at
50 right angles to the plane of the body of the box, the said spring-bar being in its normally untwisted relation when the said cover stands at right angles to the plane of the body of the box, substantially as and for the purposes set
55 forth.

3. In a box, the combination, with a body having curled hinge members, and an indentation on one of said members, of a lid having
60 curled hinge members registering with the hinge members of said body, and an indentation in one of the hinge members of said lid, and a spring-bar arranged in said hinge members, said bar having its end portions in fixed
65 engagement with the projecting portions formed by said indentations upon the inner portions of the respective hinge members, whereby when the said lid is closed the spring-bar is twisted, but when the said lid is opened,
70 the said spring-bar is in its normally untwisted state, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 28th day of October, 1903.

BENNO VOM EIGEN.

Witnesses:

FREDK. C. FRAENTZEL,
GEO. D. RICHARDS.