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PATENTED OCT. 10, 1905.

O. L. ANDERSON.
SPARK ARRESTER.
APPLICATION FILED MAR. 3, 1905.

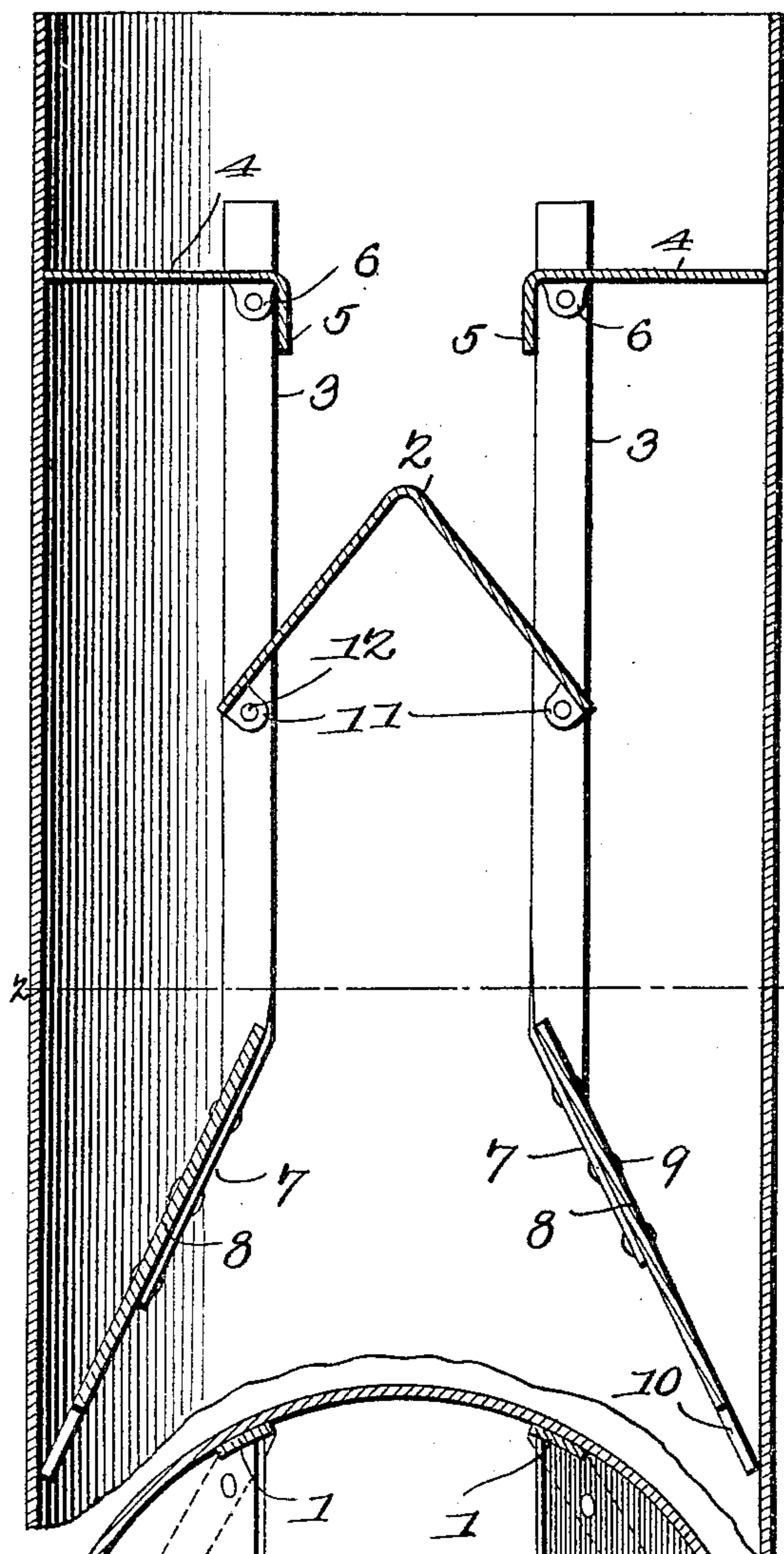


Fig. 1.

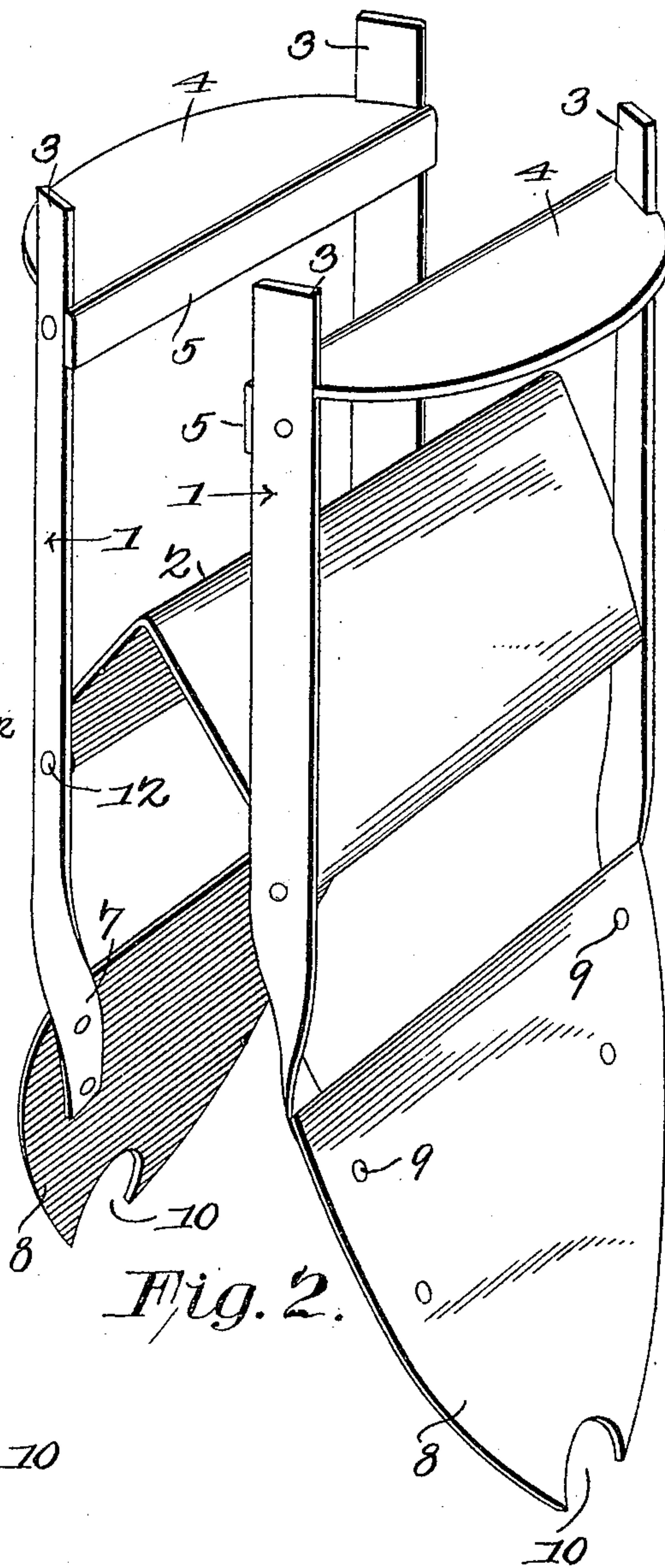


Fig. 2.

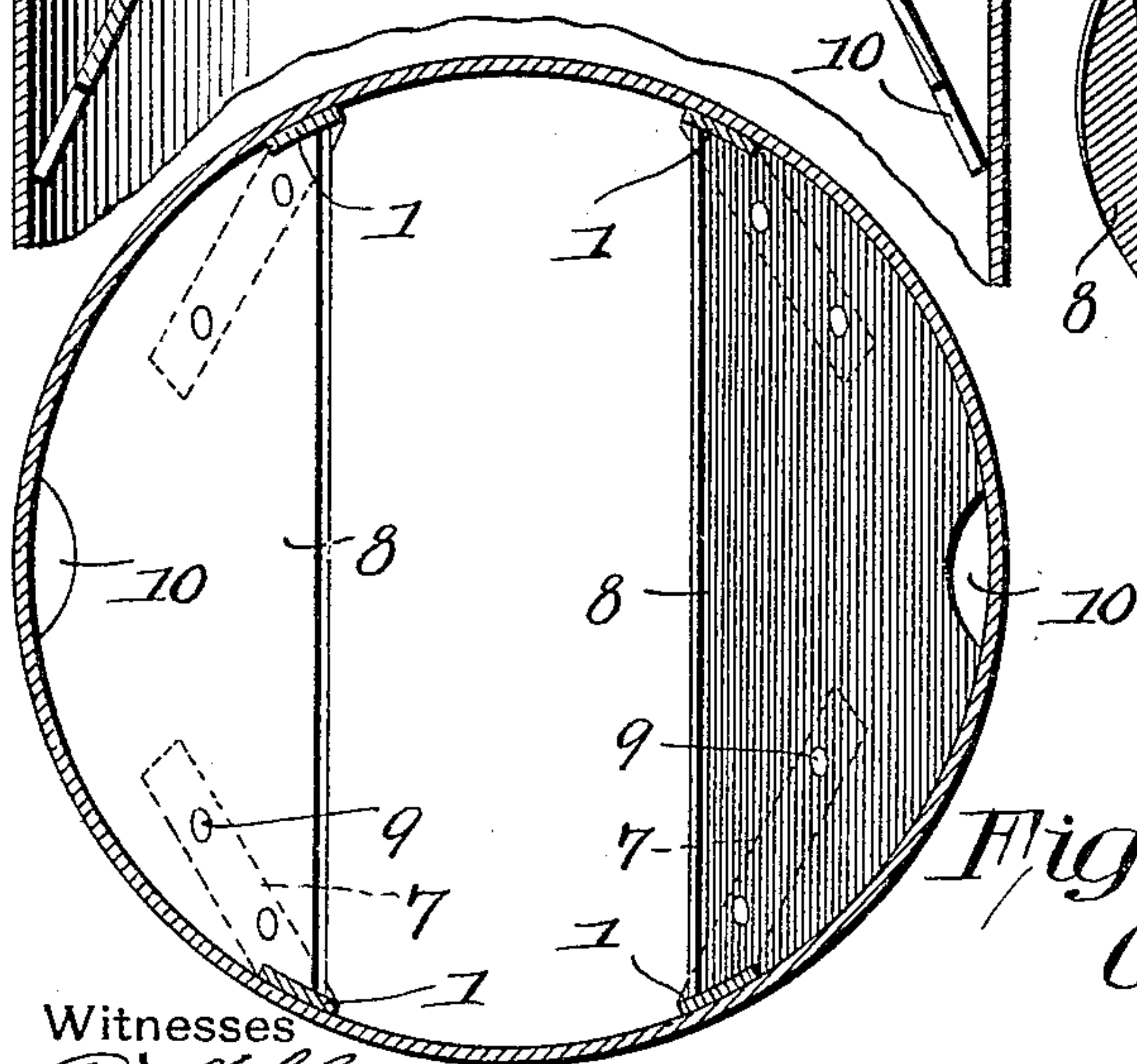


Fig. 3.

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UNITED STATES PATENT OFFICE.

OLIVER LACY ANDERSON, OF DALLAS, TEXAS.

SPARK-ARRESTER.

No. 801,435.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OLIVER LACY ANDERSON, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented a new and useful Spark-Arrester, of which the following is a specification.

This invention relates to spark-arresters; and it has for its object to simplify and improve the construction and operation of this class of devices.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of embodiment of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that the right is reserved to any changes, alterations, and modifications to which recourse may be had within the scope of the invention and without departing from the spirit or sacrificing the efficiency of the same.

In said drawings, Figure 1 is a vertical sectional view showing a spark-arrester constructed in accordance with the principles of the invention mounted for operation in a stovepipe or other smoke-conductor. Fig. 2 is a perspective view showing the spark-arrester detached. Fig. 3 is a sectional view taken on the plane indicated by the line 2 2 in Fig. 1.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The improved spark-arrester of the present invention is composed of two principal parts or side members 1 1, which are connected with each other by means of a resilient connecting member 2, which also forms an important operative part of the device, as will be presently explained.

Each of the side members is composed of a pair of vertical parallel bars 3 3, which are connected near their upper ends by means of segmental plates 4 4, said segmental plates being provided at their inner straight edges with downturned flanges 5. The segmental plates 4 are also provided with downturned

lugs, as 6, for the reception of rivets, whereby they may be connected with the bars 3. The latter near their lower ends are twisted, as shown at 7, to support semi-elliptical plates 8, which may be secured upon the twisted lower ends of the bars by means of rivets 9 and which are provided at their lower edges with recesses 10.

The bars 3 3 of the opposite side members of the device are connected by means of an inverted-V-shaped plate, which constitutes the connecting member 2 hereinbefore referred to and which is provided with lugs 11 for the reception of rivets or bolts or other connecting members (indicated at 12) and which, if desired, may be of a nature to establish pivotal connection between the side members 1 and the connecting member 2. The said connecting member 2 is made of resilient material, its tendency being to spring the side members 1 1 apart from each other.

The device in practice will be made of proper dimensions to fit the particular pipe, flue, or stack in which it is to be mounted for operation, it being requisite, however, that the side members 1 1 when in position shall be spaced apart, as clearly shown in Fig. 1 of the drawings, and that the members 4 and 8 shall fit snugly against the inner wall of the pipe, flue, or stack, as the case may be. Products of combustion as they rise through the stack will be deflected toward the middle of the stack by the deflectors 8, which obviously occupy an upwardly and inwardly inclined position. The products of combustion will thus be directed against the underside of the inverted-V-shaped connecting-plate, which constitutes a spark-arresting medium and at the same time serves to deflect the products of combustion in the direction of the sides of the stack, where they rise until intercepted by the deflecting members 4, having the downturned flanges 5. Sparks, cinders, and unconsumed particles of fuel intercepted by the deflectors 2 and 4 will gravitate mainly onto the upper surfaces of the plates 8, escaping through the openings or recesses at the lower edges of said plates back into the stove or furnace or into some receptacle provided for the purpose. The device will be retained securely in operative position by the resiliency inherent in the connecting member 2, whereby the side members will be forced into frictional contact with the wall or stack. If the connection between the members 1 and 2 is a pivotal one, the said

members 1 will be self-adjusted—that is, their upper and lower ends will be forced equally into engagement with the pipe or stack.

Having thus described my invention, what is claimed is—

1. A spark-arrester comprising side members having deflecting and intercepting means, and a resilient connecting member.

2. A spark-arrester comprising side members having deflecting and intercepting means, and a resilient connecting device constituting deflecting and intercepting means.

3. In a spark-arrester, a pair of side members including elliptical deflecting-plates, segmental intercepting-plates, and connecting and spacing means for said plates, in combination with an inverted-V-shaped resilient connecting member.

4. In a spark-arrester, a pair of side members including elliptical deflecting-plates, segmental intercepting-plates, and connecting and spacing bars for said plates, in combination with an inverted-V-shaped resilient connecting member pivotally connected with the connecting-bars of the side members.

5. In a spark-arrester, two side members each provided with an inclined deflecting-plate

and an approximately horizontal intercepting-plate having a downturned flange; said deflecting and intercepting plates being spaced apart and connected by approximately vertical bars; in combination with an inverted-V-shaped resilient member pivotally connected with the side members and spacing the latter apart.

6. In a spark-arrester, a pair of side members each provided with an inclined deflecting-plate having a recess at its lower edge, and an approximately horizontal intercepting-plate having a downturned flange; said deflecting and intercepting plates being adapted to the contour of a pipe, stack or chimney and said plates being spaced apart and connected by approximately vertical bars; in combination with an inverted-V-shaped resilient member connected with the side members and spacing the latter apart.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

OLIVER LACY ANDERSON.

Witnesses:

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S. H. STOUGHTON.