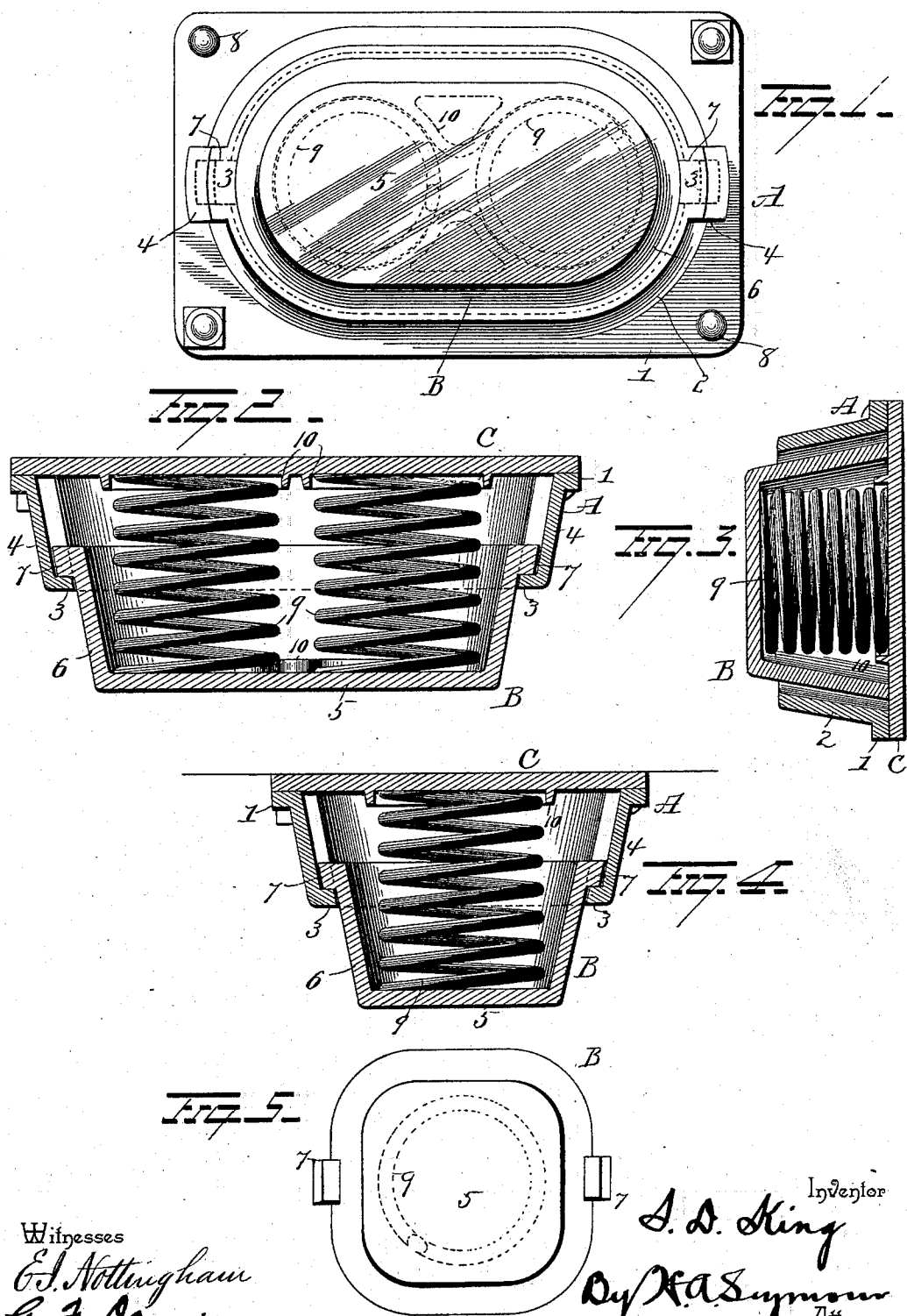


(No Model.)

S. D. KING.
BUFFER.

No. 578,752.

Patented Mar. 16, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

SIDNEY D. KING, OF DUNMORE, PENNSYLVANIA.

BUFFER.

SPECIFICATION forming part of Letters Patent No. 578,752, dated March 16, 1897.

Application filed August 20, 1896. Serial No. 603,381. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY D. KING, a resident of Dunmore, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Buffers; 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 appertains to make and use the same.

My invention relates to an improvement in spring-buffers, the object being to provide a buffer of simple construction which can be easily applied and which will be durable and effectual in the accomplishment of its functions.

With these objects in view my invention consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan view. Fig. 2 is a sectional view of the buffer in its normally-expanded condition. Fig. 3 is a sectional view taken at right angles thereto, showing the springs compressed. Figs. 4 and 5 are modifications.

A and B represent two shells. The shell A comprises flat plate 1 and an inwardly-inclining flange 2 projecting therefrom. This flange 2 is provided with shoulders 3 3 at opposite points, and the flange 2 2 is offset, as at 4 4, to inclose these shoulders 3 3. The shell B is constructed and adapted to operate within shell A, and it consists of an outer plate 5, which constitutes the outer end of the buffer, and an outwardly-inclining flange 6, adapted to enter and form a continuation of flange 2. At opposite ends lugs 7 7 are formed. These lugs are adapted to strike the shoulders 3 3 when shell B is in its extreme outward position, thus preventing the shells from coming apart. At the same time they admit of a slight rocking movement of the shell B.

A plate C is secured upon plate 1 by means of screws or rivets 8 8, or otherwise, at each corner, and the springs 9 9 are confined in the open space formed between the plate 5 and plate C, the ends of the springs bearing, respectively, upon them. While two of these springs are shown, it is evident that one might be used, or more than two could be employed,

if desired. The ends are preferably prevented from slipping laterally by being inserted in seats 10 10 on the inner walls of plates 5 and C.

By reference to Fig. 3 it will be seen that when the buffer is compressed to the utmost it is not sufficient to bring the members of the spring in contact with one another. This is one of the aims of my invention to avoid this contact of the various spirals of the spring, as their contact with one another incident to the concussion upon and compression of these buffers is a very prevalent cause of the injury, if not total destruction, of these spring-buffers. It will likewise be observed that the construction of the buffer is such that the flanges 2 and 6 overlap each other at all times, whether the springs be compressed or expanded, thus effectually inclosing and protecting the springs from exposure to rain, snow, and ice or any other accumulation.

In the modifications the buffer is made smaller, and a single spring is used instead of two, as previously described.

These buffers may be variously applied to the end sills of a car, they require little or no cutting away, and they may be secured in position by bolts, clips, or otherwise.

It is evident that slight changes might be made in the form and arrangement of the various parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A buffer comprising two telescoping sections and springs interposed between them whereby to retain them yieldingly apart, one section having lugs at diametrically opposite points, and the other recesses for the passage of these lugs, the lugs admitting of a rocking sliding connection between the two sections, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SIDNEY D. KING.

Witnesses:

CHARLES J. BRADY,
WM. BRADY.