

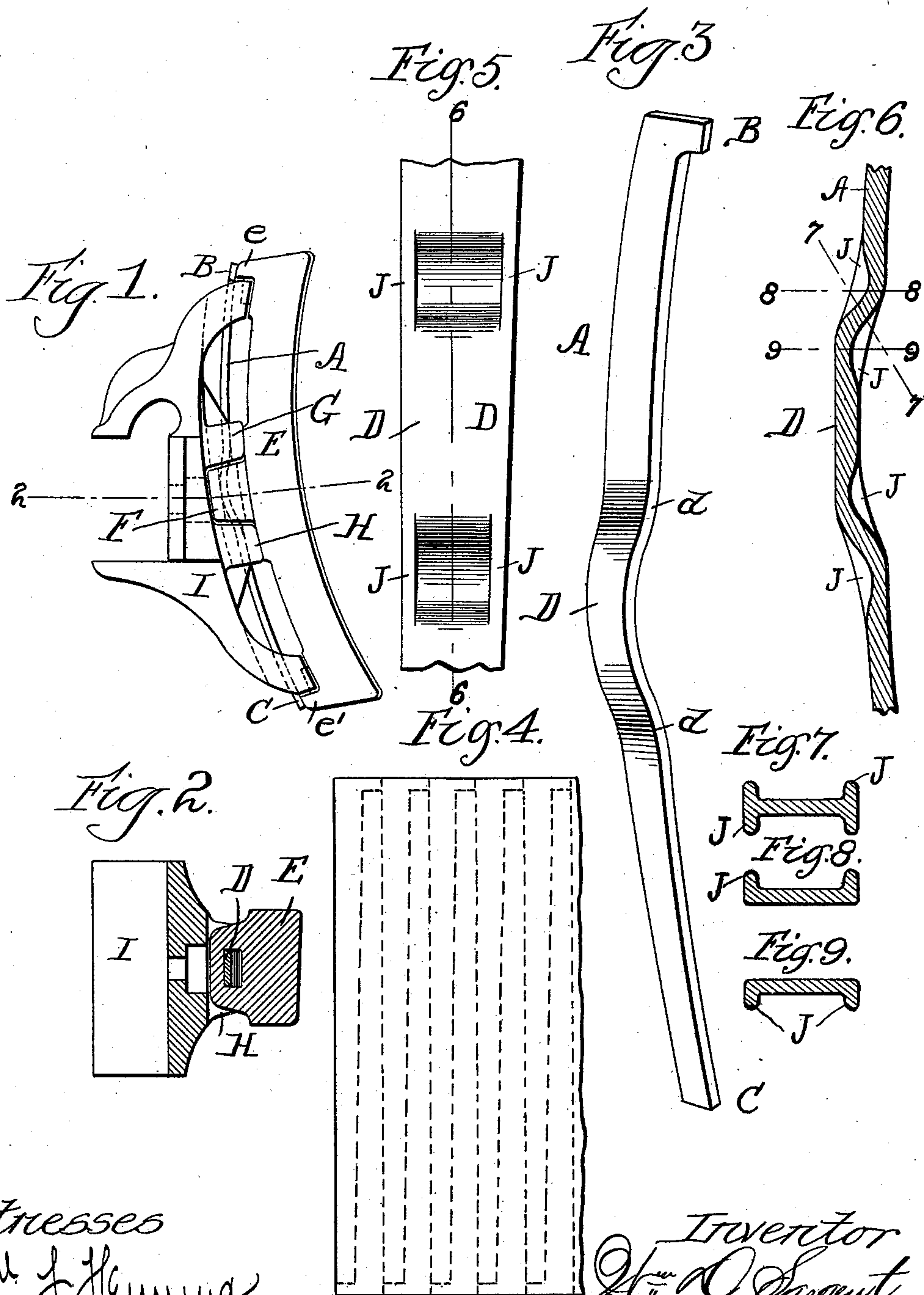
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Patented Nov. 8, 1898.

W. D. SARGENT.
KEY FOR BRAKE SHOES.

(Application filed Sept. 14, 1897.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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KEY FOR BRAKE-SHOES.

SPECIFICATION forming part of Letters Patent No. 613,887, dated November 8, 1898.

Application filed September 14, 1897. Serial No. 651,581. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DURHAM SARGENT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Keys for Brake-Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My present invention relates to certain new and useful improvements in keys for securing brake-shoes to the heads of car-brakes.

Heretofore keys for brake-shoes have been made with sides and constructed in a wedge-shaped form, so that they can be driven in place, and by reason of their peculiar wedge shape they securely lock the brake-shoe in position.

One of the primary objects of my invention is to materially reduce the cost of manufacturing keys for brake-shoes by simplifying its construction, reducing the number of operations necessary to make it, and creating a new form for the key whereby some of the parts of the old key may be omitted, and thereby reduce its weight and the quantity of metal required in its construction.

Another object of the invention is to provide a key of peculiar construction which will hold the brake-shoe rigidly and securely in place on the brake-head; and a further object of the invention is to provide a key for brake-shoes having a spring-section or offset located between its ends.

In the accompanying drawings I have shown my improved key and the manner of its application, and referring thereto—

Figure 1 is a side elevation showing one of my improved keys in position for locking a brake-shoe to the head of a car-brake. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of a key. Fig. 4 shows the manner in which the keys are stamped from a sheet of metal. Fig. 5 is a detail view showing that portion of the brake-key having the offset with ribs thereon. Fig. 6 is a longitudinal sectional view on the line 6 6 of Fig. 5. Figs. 7, 8, and 9 are transverse sectional views on the lines 7 7, 8 8, and 9 9, respectively, of Fig. 6.

Referring to the drawings, in which like letters of reference denote corresponding parts in all of the figures, A designates one of my improved keys, as clearly shown in Fig. 3, and it will be noted that this key is of substantially uniform thickness throughout its length, but is preferably tapered toward its end, although this tapering is not essential. The key is provided with a head B of any suitable construction, the form shown being satisfactory for all practical purposes. Between the head and end C of the key is an offset D, which is formed by a suitable machine after the key is stamped from the blank and in such a manner that it will constitute, in effect, a spring-section.

The keys may be stamped out of a sheet of metal in the manner indicated in Fig. 4, whereby a great saving is effected in the amount of metal required, there being no waste; but other methods of making the keys may be employed, if desired.

The practical use of my improved key is illustrated in Fig. 1, the face of the key bearing against the projections *e* and *e'* on the brake-shoe E and passing through openings in the lug F on the brake-shoe and the lugs G H on the brake-head I. The offset D of the key engages the lug F, and the shoulders *d d'*, which are formed where the offset merges into the other sections of the key, will engage the lugs G and H. The offset is formed with such a degree of curvature that when the key is driven into place, as shown in Fig. 1, the offset will be under compression between the lug F and the lugs G H, thereby securely locking the brake-shoe in position.

This brake-key has to all intents and purposes but three effective points of contact with the brake-shoe and brake-head—that is to say, at the lugs F, G, and H—and the offset is curved in such relation to the space occupied by the key in the openings in said lugs F, G, and H that when the key is driven in place the offset will be sprung more or less and forced against the shoulder D, thereby effectually securing the shoe in place.

This key is formed without the sides usual with keys of this character; but the same result is accomplished by the offset as with the wedge-shaped sides on other keys. If it is

desired, the straight portions between the ends and the offset may be bent with a greater degree of curvature than the arc of the brake-shoe, and this may be done in the same machine that forms the offset and at the same time. To strengthen the offset where it merges into the straight portions of the key, the metal at these shoulders may be forced up at the time the offset is formed to provide the ribs or strengthening-ridges J. These ribs may be located in the position shown in the drawings, or in some instances it will be found that a satisfactory result may be secured by the employment of a fewer number of ribs, this being a matter which rests largely within the discretion of the manufacturer.

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

20 1. A key for brake-shoes composed of sheet metal and provided with an offset between its ends, and shoulders where the offset merges

into the other portions of the key, substantially as described.

2. A key for brake-shoes composed of sheet metal provided with an offset between its ends and strengthening-ribs located where the offset merges into the other portions of the key, substantially as described. 25

3. The combination with a brake-head provided with a pair of perforated lugs, a brake-shoe provided with a perforated lug adapted to fit between the lugs on the brake-head, of a key composed of sheet metal having an offset adapted to engage the lug on the brake-shoe and having shoulders at each side of said offset adapted to respectively engage the lugs on the brake-head, substantially as described. 30 35

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