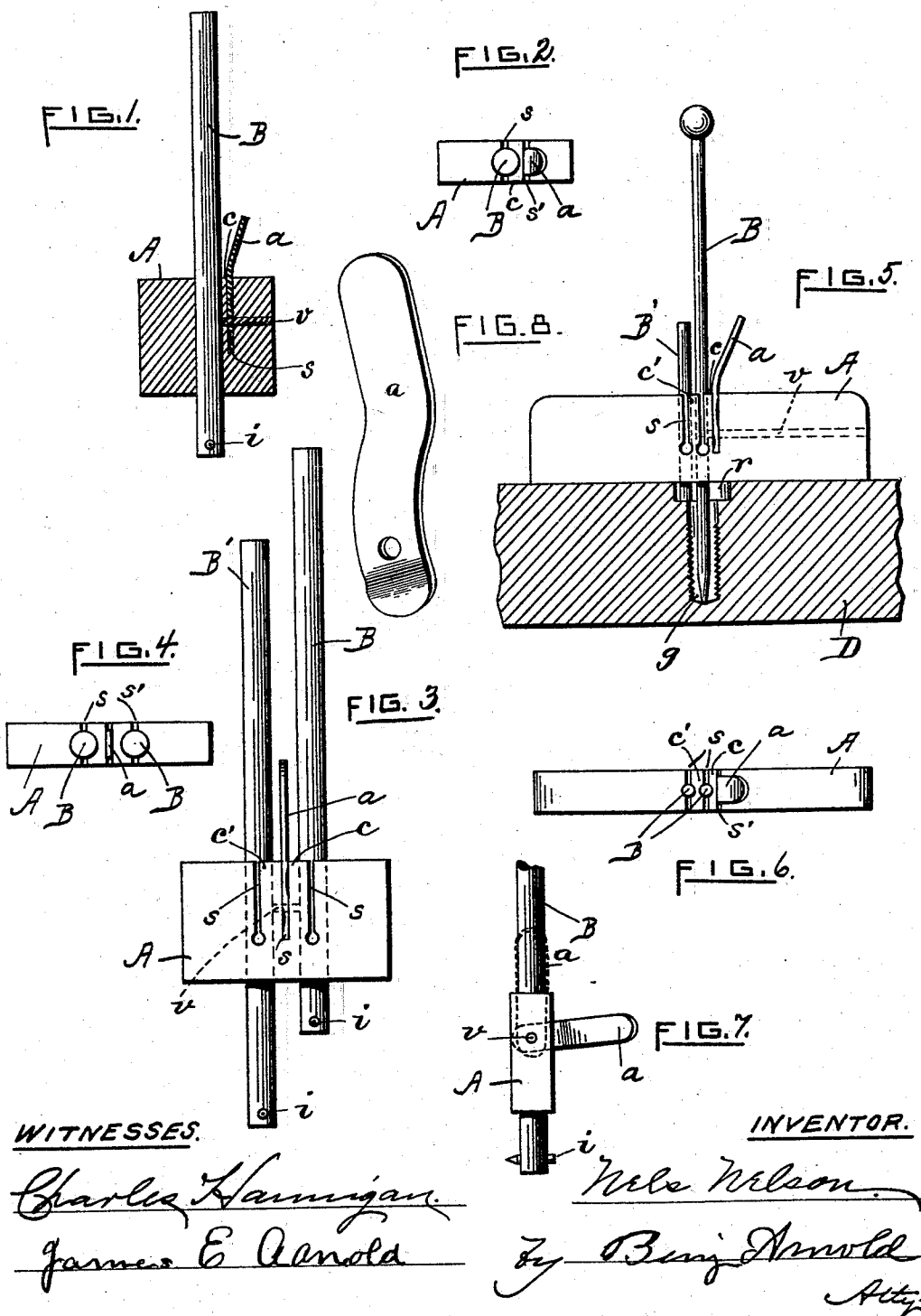


(No Model.)

N. NELSON.
DEVICE FOR TIGHTENING GAGE BARS.

No. 578,764.

Patented Mar. 16, 1897.



UNITED STATES PATENT OFFICE.

NELS NELSON, OF ATTLEBOROUGH, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO OLOF PHARSON, OF SAME PLACE.

DEVICE FOR TIGHTENING GAGE-BARS.

SPECIFICATION forming part of Letters Patent No. 578,764, dated March 16, 1897.

Application filed April 22, 1896. Serial No. 588,593. (No model.)

To all whom it may concern:

Be it known that I, NELS NELSON, of Attleborough, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Devices for Tightening Gage-Bars; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to devices for holding the sliding bars in gages and like instruments to prevent them from changing in position after they have been adjusted. Its construction and operation are fully described and illustrated in this specification and accompanying drawings.

Figure 1 is a representation of a single scratch-gage with the bar shown in elevation and the block in vertical section. Fig. 2 shows a top view of the same. Fig. 3 represents a double scratch-gage with the tightening-lever between the bars. Fig. 4 is a top view of the double scratch-gage. Fig. 5 is an elevation of a double depth-gage. Fig. 6 is a top view of the gage shown in Fig. 5. Fig. 7 is an end elevation of the single gage shown in Fig. 1, and Fig. 8 is an enlarged perspective view of the tightening wedge-lever separate.

The devices as shown in Fig. 1 consist of a rectangular block A, having a hole drilled through it in which a bar B is fitted to slide closely. The bar and hole may be made square or other shape instead of round, if preferred. A slot *s* (see Fig. 2) is made through the center of the hole from one side to the other down a little more than one-half the thickness of the block A. (See Fig. 3.) Another like slot *s'* is made a little way from the slot *s* to receive the lever *a*, which is held therein by a pin *v*, inserted in a hole drilled in from the end of the block. The lever *a* is made of a proper thickness to go easily in the slot *s'* when the end only is inserted, as in the position shown in Fig. 7, and is bent a little flatwise just above the pivot *v*, so that it will require to be pushed to turn it up in the position shown in the dotted lines in Fig. 7. As the bent portion enters the slot it crowds the

tongue *c* between the two slots against the bar B, so as to bind it and prevent it from moving until the lever is again turned over in the position shown in full lines in Fig. 7, in which position the bar can be adjusted for use.

Fig. 3 represents a gage of the same character as the one shown in Fig. 1, excepting that an additional bar B' has been added, and the tightening-lever *a* is placed in a slot between the two bars. When the lever is operated or turned up, as before described, it presses against the tongues *c c* on each side and binds both bars fast.

A modification of the double gage is shown in Fig. 5 for a depth-gage. For this purpose the two bars B B' are necessarily placed so close together that there is no room for the tightening-lever *a* to be placed between them; but the bars B B' fit in their holes so closely that the pressure exerted on the tongue *c* when the lever *a* is raised or turned up is transmitted through the bar B to the tongue *c'*, which binds the second bar B', so that by the one lever both bars are securely held. This gage is represented as being applied to a piece of work D, which is shown in vertical section, to gage the depth of a screw-hole *g* and the depth of the counterbore *r*, made to receive the head of the screw, at one operation. This tightener is easily operated and not likely to be moved if the gage should be dropped, and it has the merit of being entirely out of the way when the instrument is used.

Having thus described the construction and operation of my improvement, I claim as my invention and desire to secure by Letters Patent—

In a gage or like instrument, a device for tightening the sliding bar thereof, consisting of a tongue formed between the bar and the tightener, made by cutting a slot through the bar-hole a part of the width of the block, a parallel slot made in the block, and a bent lever pivoted in said slot.

NELS NELSON.

Witnesses:

E. B. READ,
BENJ. ARNOLD.