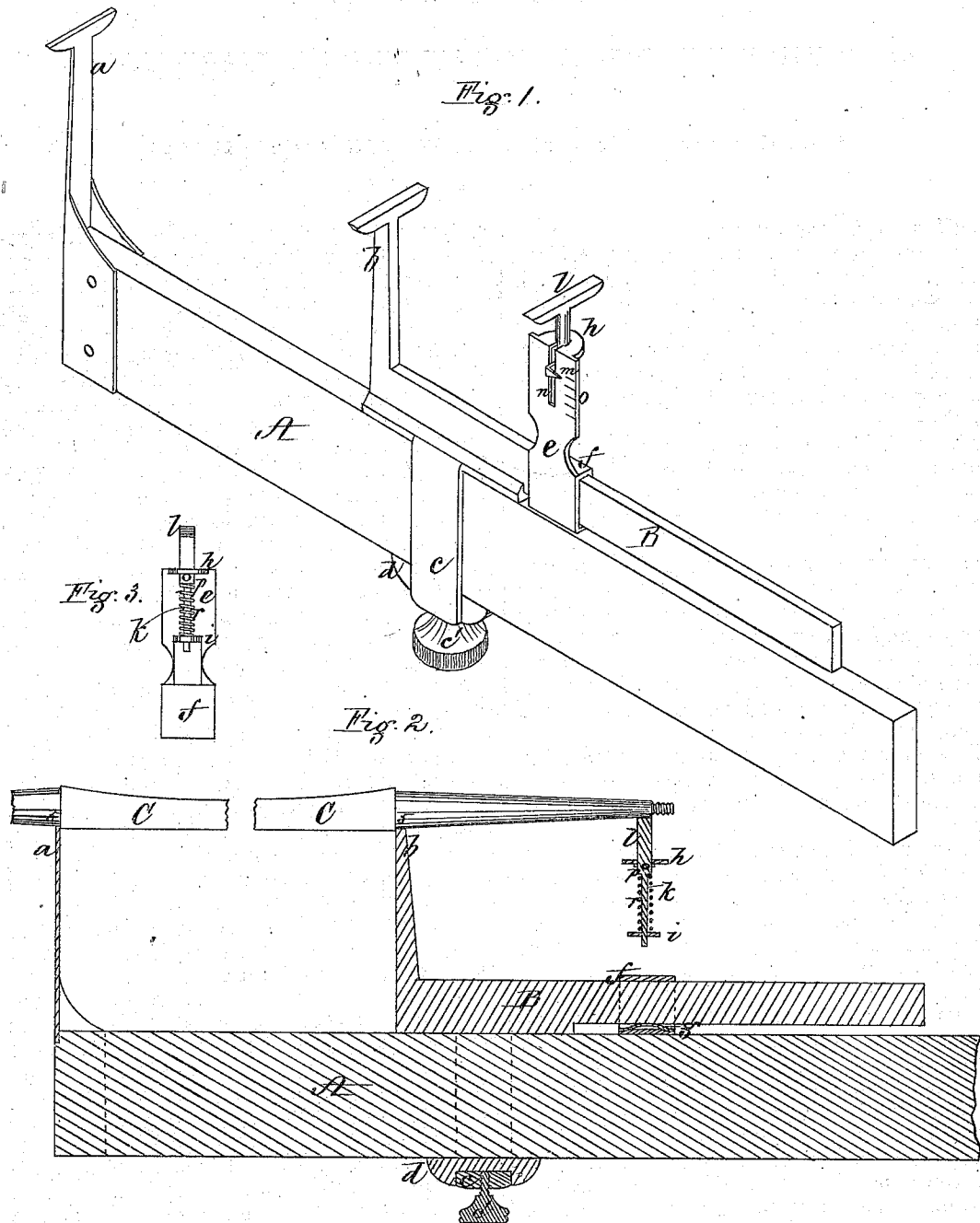


LEVI TAYLOR.

Improvement in Gauges for Setting Carriage-Axles.

No. 126,995.

Patented May 21, 1872.



Witnesses,
W. J. Cambridge
E. E. Batcheller.

Inventor,
Levi Taylor
By his Attorneys
Teschemacher & Stearns.

UNITED STATES PATENT OFFICE.

LEVI TAYLOR, OF MARLBOROUGH, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND JAMES H. BELSER, OF SAME PLACE.

IMPROVEMENT IN GAUGES FOR SETTING CARRIAGE-AXLES.

Specification forming part of Letters Patent No. 126,995, dated May 21, 1872.

To all whom it may concern:

Be it known that I, LEVI TAYLOR, of Marlborough, in the county of Middlesex and State of Massachusetts, have invented an Improved Gauge for Setting Carriage-Axles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of my improved gauge. Fig. 2 is a longitudinal section through the center of the same, with a carriage-axle applied thereto; Fig. 3, detail, to be referred to.

My invention consists in an implement composed of a bar having a stationary rest and a movable rest, in combination with a sliding spring-gauge, provided with a scale and index, to be used in setting carriage-axles, whereby the inclination of the journals may be accurately determined and made to correspond exactly with each other.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing, A is a rectangular bar, from one end of which rises a stationary standard or rest, *a*. *b* is a movable standard or rest, the bottom of which is secured to one end of a smaller rectangular bar, B, provided with a metallic loop, *c*, made to slide upon the bar A, and clamped in any desired position thereon by means of a set-screw, *c'*, which presses against a notched block, *d*, placed between the bottom of the loop *c* and the bar A. *e* is a movable plate, the lower end of which is provided with a rectangular loop, *f*, which fits over and slides upon the bar B, a spring, *g*, at the bottom of the loop producing sufficient friction to retain it in the desired position when adjusted. From the back of this plate *e* project two horizontal lugs, *h* and *i*, Fig. 3, one, *h*, at its top, and the other, *i*, a short distance above the loop *f*. Through holes in these lugs passes the vertical portion *k* of the gauge *l*, which is provided with an index or pointer, *m*, which passes through a

slot, *n*, in the plate *e*, to its point, which is provided with a graduated scale, *o*. *p* is a stop, between which and the lower lug *i*, and surrounding the vertical portion *k* of the gauge, is placed a spiral spring, *r*, the resistance of which presses the top of the gauge *l* upward.

When the journals of the axle (preferably tapered) are to be set at the necessary inclination downward to give the wheels the desired "pitch," the stationary rest *a* is brought snugly up under one of the shoulders 5 of the axle C, and the movable rest *b* is slid along the bar A under the other shoulder 5. The sliding gauge *l* is now moved along the bar B up to the part of one end of the journal where the wheel is to run, when the gauge is depressed, and is brought thereunder against the resistance of the spring *r*, and the position of the index is carefully noted. The journal at this end of the axle is now deflected on the anvil, and then placed on the gauge to ascertain if it has been sufficiently inclined. If it is required to be inclined still further, the operation is repeated until the journal, when placed upon the gauge, brings the index down to a predetermined point. The other journal is then deflected in a similar manner, so that, when placed upon the gauge, it will carry the index down to the same predetermined point of the scale to which it was carried by the first journal; and it will thus be seen that, by the use of my improved gauge, both journals of an axle can be deflected or inclined exactly alike, to give the required "pitch" to the wheels to be placed thereon. By giving the axle a quarter turn, the index will show if the journal has been accidentally bent to one side of a vertical plane passing through the center of the axle while giving it the desired "pitch;" and if such is the case, the journal is straightened on an anvil, and when perfectly true the index will be carried down to the same point when the opposite sides of the journal are applied thereto.

If preferred, the bar B may be dispensed with, in which case the plate *e* must be provided with a loop adapted to slide upon the bar A.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

The bar A, with its stationary and movable rests *a b*, in combination with a sliding spring-gauge provided with an index and scale, substantially as and for the purpose set forth.

Witness my hand this 9th day of April, A.
D. 1872.

LEVI TAYLOR.

In presence of—

N. W. STEARNS,
W. J. CAMBRIDGE.