

(No Model.)

S. E. LICKLIDER.  
TONGUE FOR EARTH SCRAPERS.

No. 450,912.

Patented Apr. 21, 1891.

Fig. 1.

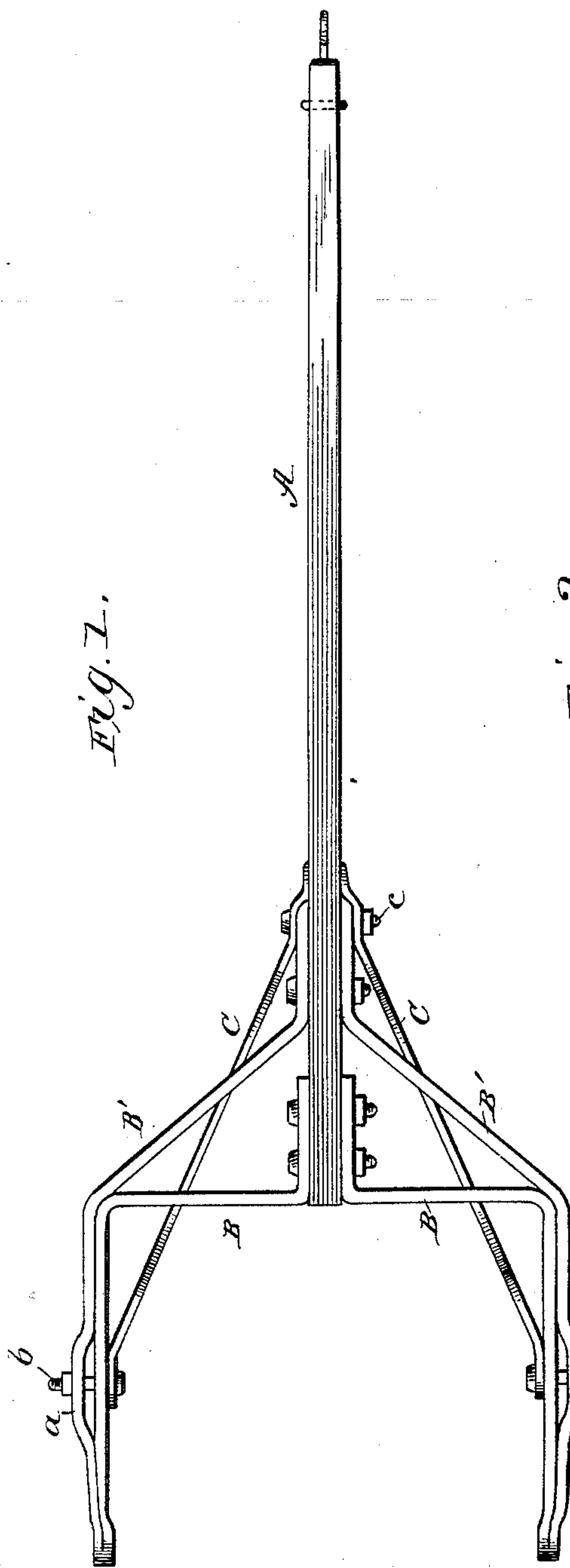
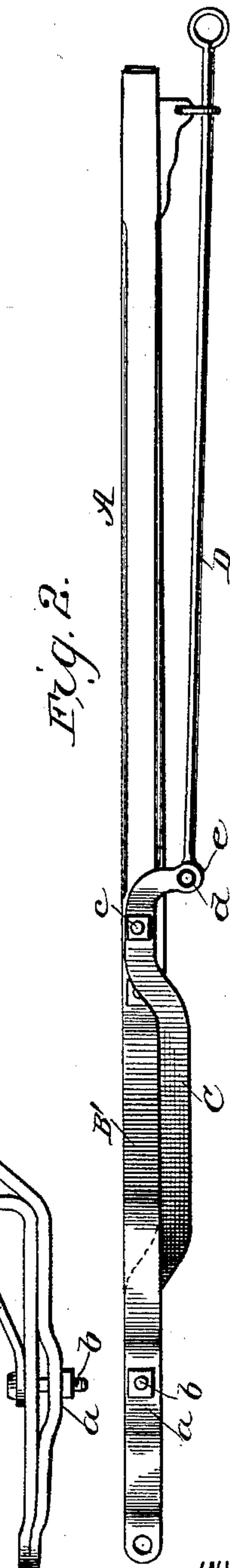


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## TONGUE FOR EARTH-SCRAPERS.

SPECIFICATION forming part of Letters Patent No. 450,912, dated April 21, 1891.

Application filed September 24, 1890. Serial No. 366,030. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL E. LICKLIDER, of Everett, in the county of Cass and State of Missouri, have invented a new and useful  
5 Improvement in Earth-Scraper Tongues, of which the following is a specification.

My invention is in the nature of certain improvements in tongues for earth-scrapers, which are applicable also to wagons, buggies,  
10 and sleighs; and it consists, mainly, in the peculiar construction and arrangement of braces and a "snatch-bar," as will be hereinafter fully described.

Figure 1 is a plan view, and Fig. 2 a side  
15 view.

A represents the tongue, to the rear of which is bolted the metal hounds, composed on each side of the tongue of a metal bar B, bent twice at right angles, and a metal bar B',  
20 bent twice at an obtuse angle. These two bars B B' are offset from each other at *a*, and are provided with a bolt *b* at this point, which connects with the hooks of the scraper, and beyond this point the two bars are extended  
25 back to the rear ends of the hounds, where they terminate in eyes for a pivotal connection with the scraper. This device, as so far described, differs but little from that already in common use. The extension of both bars B  
30 B' back to the rear ends of the hounds is, however, not a common construction, and I find that it adds greatly to the strength of the device, since the pivot-hole extends then through both of the hound-bars, and its ability to resist the draft-strain and wear is thus  
35 greatly increased.

C C are brace-bars, which at their forward ends are bolted through the tongue by one of the bolts *c* that secures the bars B'. These  
40 bars C C extend divergently to the rear, and are bent down in the middle, so as to pass under the bars B B', and then rising again at their rear ends are bolted to the inside of bars B by the same bolts *b* that connect with  
45 the hooks of the scraper. The front ends of these brace-bars are provided with downward extensions *d* on each side of the tongue,

through which, below the tongue, there passes a bolt *e*, to which is attached the snatch-bar D, which extends parallel with the tongue to  
50 the front end, and is provided with a connection to which the extra team is attached to overcome the extra strain in pulling the scraper through the ground in loading. This connection of the snatch-bar to the front of the  
55 braces, instead of the tongue, avoids the weakening of the tongue caused by boring holes in it and causes the strain of the extra team to be transmitted directly to the strong metallic connections in the rear, which are able  
60 to stand it. I do not confine myself to the use of this feature, however, as I may use it or omit it, as may be desired.

The function of the brace-bars C is to strengthen and stiffen the hounds, so as to  
65 cause them to properly co-operate with the scraper and the other working parts and thus prevent the working mechanism from becoming jammed or accidentally locked.

Having thus described my invention, what  
70 I claim is—

1. The combination, with the tongue and the hounds B B', of the brace-bars C C, bolted to the tongue and extending beneath the bars B B' and bolted to the inside of the same,  
75 substantially as shown and described.

2. The combination, with the tongue, of the brace-bars C C, bolted to the tongue and having their forward ends bent down below the tongue and connected by a bolt and a snatch-  
80 bar hung upon said bolt, substantially as shown and described.

3. The combination, with a tongue, of the two hound-bars B B', bent twice, as described, offset from each other at *a*, and bolts extended  
85 to the rear ends of the hounds and provided with a pivot-hole which passes through both thicknesses of the hound-bars, substantially as shown and described.

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Witnesses:

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