

(No Model.)

L. FRACHER.

WAGON SPRING.

No. 356,358.

Patented Jan. 18, 1887.

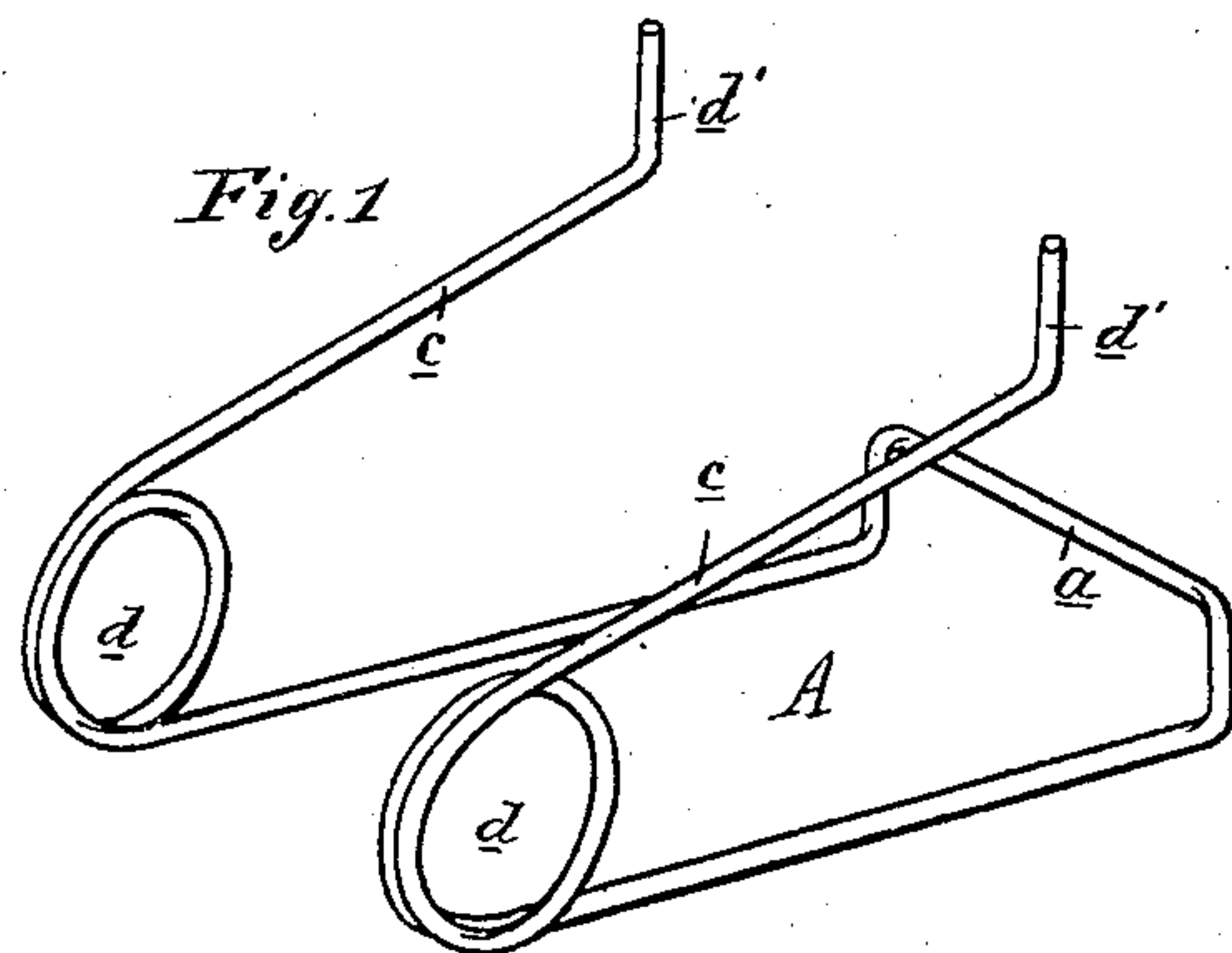
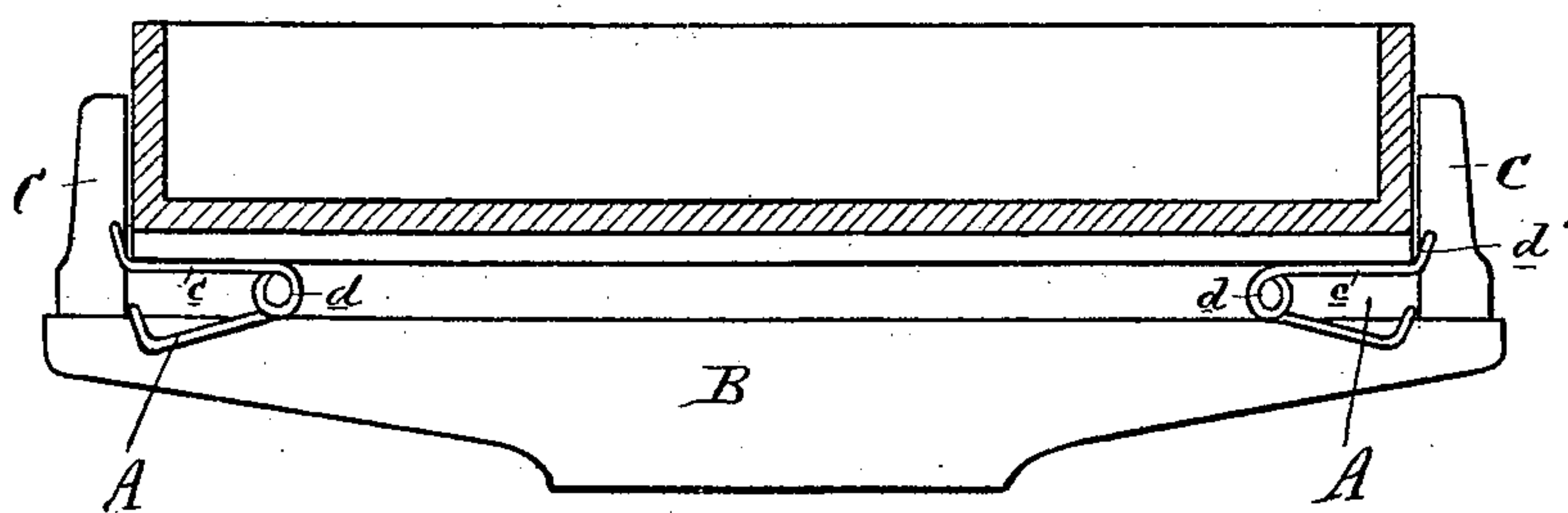


Fig. 2



Attest:

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Inventor:

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UNITED STATES PATENT OFFICE.

LOUIS FRACHER, OF DETROIT, MICHIGAN.

WAGON-SPRING.

SPECIFICATION forming part of Letters Patent No. 356,358, dated January 18, 1887.

Application filed October 28, 1886. Serial No. 217,412. (No model.)

To all whom it may concern:

Be it known that I, LOUIS FRACHER, of Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Wagon-Springs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

10 This invention relates to certain new and useful improvements in wagon-springs; and the invention consists in the peculiar construction, arrangement, and combination of the parts, all as more fully hereinafter set forth.

15 Figure 1 is a perspective view of my improved spring. Fig. 2 is a view showing its application to a bolster of a wagon.

In the accompanying drawings, which form a part of this specification, A represents a 20 spring, which is formed from a bar of steel, and which is bent upon itself to form a loop, the end of which terminates in a riser, *a*. At about the longitudinal center of the arms of the spring the spring-bar is coiled upon itself, as at *d*, the arms *c* being turned outwardly 25 at nearly right angles, forming the stops or shoulders *d'*.

In practice the loop of the spring embraces

the bolster B, the riser *a* lying across the same and against the bolster-stake C, while the body 30 of the box rests upon the arms *c* and against the stops *d'*, it being necessary, of course, to use two springs upon each bolster. In the use of a spring of this construction a much easier elasticity is obtained than in any of the springs 35 now in use, as under a superimposed load the arms *c* are depressed, while at the same time in the vertical play the riser *a* slightly rocks upon the bolster, and in case it is desired to use the vehicle without a spring they can 40 readily be removed, as there are no bolts or other contrivances necessary to keep the spring in place except the wood of the box.

What I claim as my invention is—

The combination, with the bolster B and the 45 stakes C and wagon-body, of the springs A, each having a loop embracing said bolster, with the riser *a* lying across the same and against the stake C, and arms *c* and stops *d'*, serving to support and prevent lateral dis- 50 placement of said body, substantially as described.

LOUIS FRACHER.

Witnesses:

E. SCULLY,
H. S. SPRAGUE.