(No Model.)

J. TAYLOR.

SIDE BAR SPRING.

No. 286,089. Patented Oct. 2, 1883.

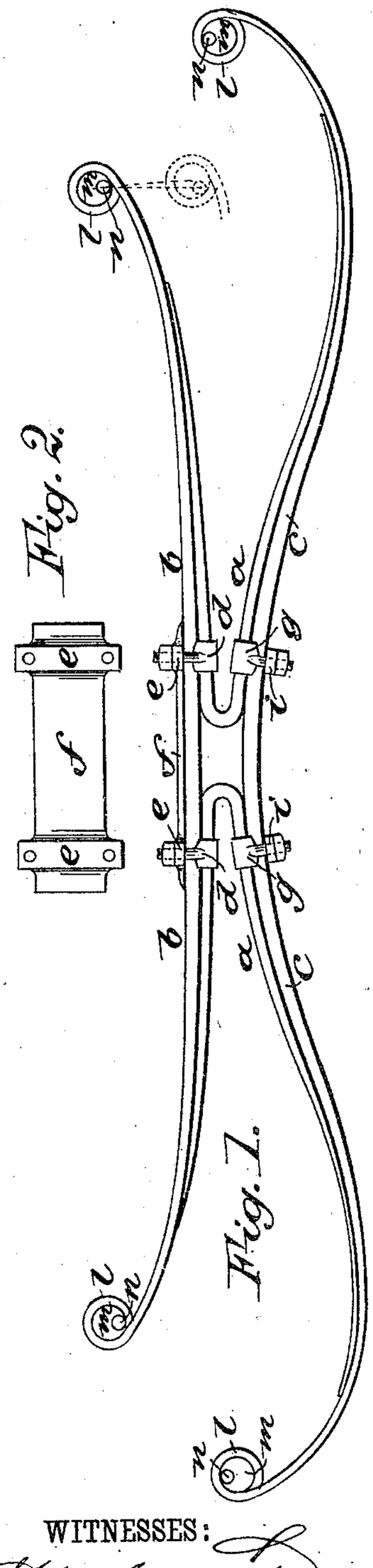

Fig. 1.

Fig. 2.

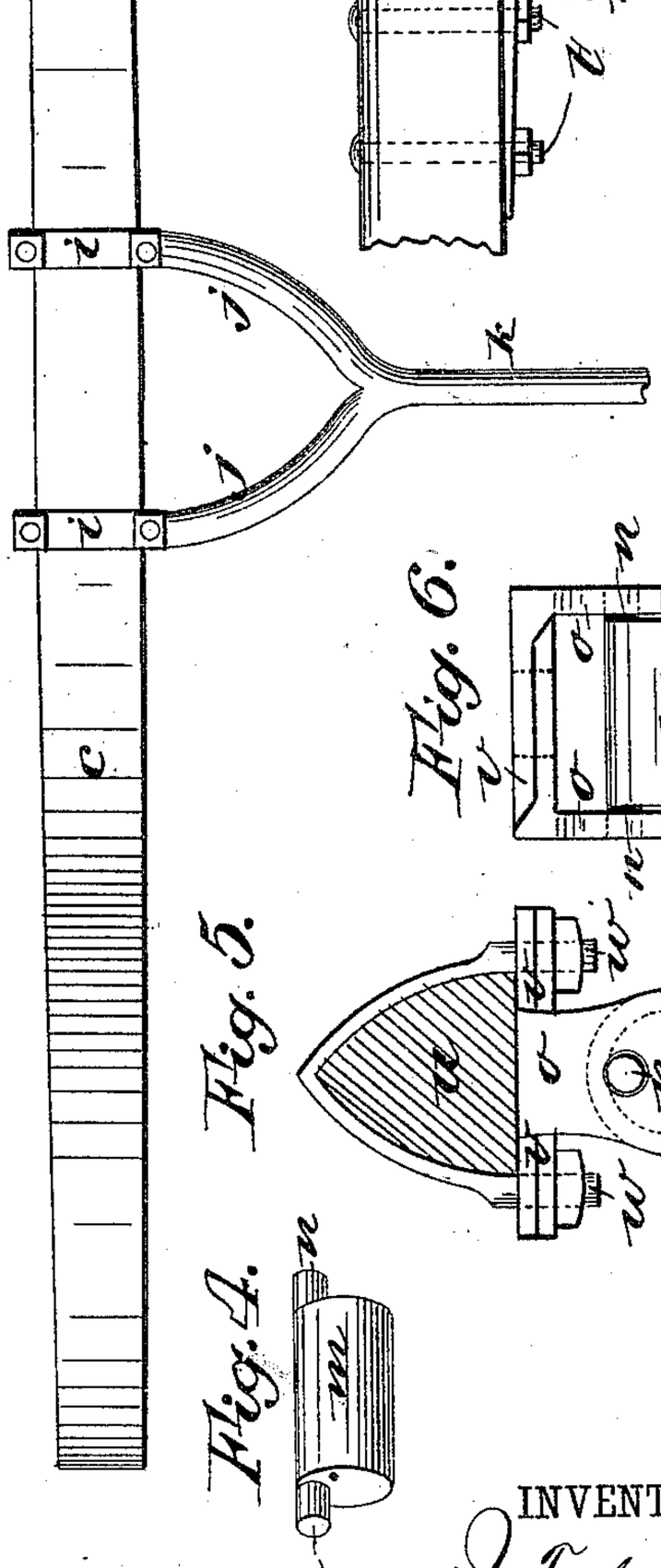

Fig. 3.

Fig. 4.

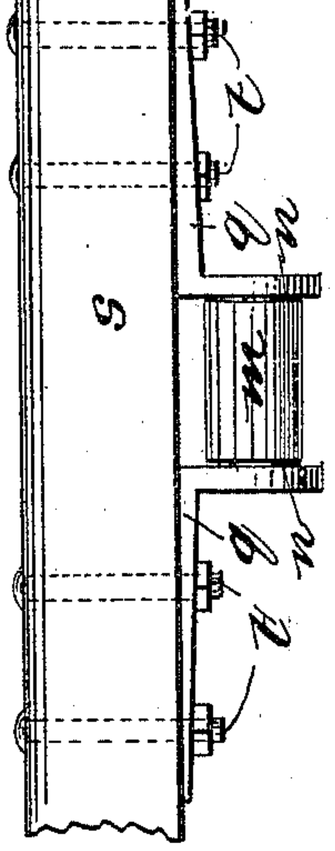

Fig. 5.

Fig. 6.

Fig. 7.

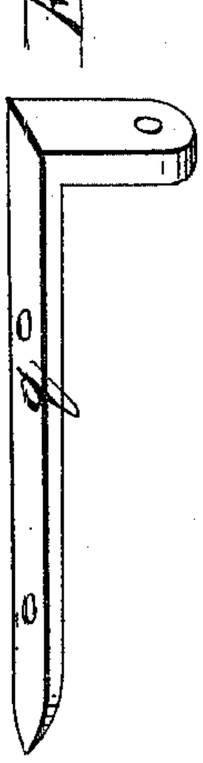

Fig. 8.

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JACKSON TAYLOR, OF NEWBERRY, SOUTH CAROLINA.

SIDE-BAR SPRING.

SPECIFICATION forming part of Letters Patent No. 286,089, dated October 2, 1883.

Application filed July 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, JACKSON TAYLOR, of Newberry, in the county of Newberry and State of South Carolina, have invented certain new and useful Improvements in Side-Bar Springs, of which the following is a full, clear, and exact description.

My invention consists of improvements in the construction of the springs; also in the means of connecting them to the side bars and to the body, and also in the means of staying the springs against lateral thrusts, whereby it is designed to provide more substantial and better operating-springs than any now in use, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my improved spring. Fig. 2 is a plan view of a clip-plate employed in the construction of the spring. Fig. 3 is a plan view of the spring inverted, and a part of the brace by which the two springs are stayed together. Fig. 4 is a perspective view of an eccentric shackle-pin employed in connecting the springs to the side bars and to the body. Fig. 5 is a cross-section of one of the side bars and side elevation of the shackle and clip by which the spring is connected to the side bar. Fig. 6 is a front elevation of the shackle. Fig. 7 is a side elevation of a portion of a rocker and the clip-plates employed for mounting the eccentric clip-pivot thereon, and Fig. 8 is a perspective view of one of said plates.

My improvement in the spring consists of the bent intermediate plates, *a*, in combination with an upper curved plate, *b*, for connecting to the body or the rockers supporting the body, and with the lower curved plate, *c*, for connecting with the side bars, said plates *a* being bent nearly double, as shown, and arranged with the bends near the longitudinal center of plates *b* and *c*, and the arms or branches extending along said plates therefrom toward the ends, and bearing on them to add their supporting power to them. Near the bends of plates *a* they are connected to upper plate, *b*, by clips *d*, the bolts of which pass through the clip-bars *e*, that are forged onto a plate, *f*, that rests on the top of *b*, to hold said clips firmly in place. Said plates *a* are also clipped to plate *c* by clips *g*, the bolts of which pass through clip-bars *e*, that are formed on the ends of branches *j* of a stay-brace, *k*, that extends from one spring to the other, for staying them against the lengthwise thrusts of the body, which would take effect on the springs laterally. The plates *b c* will have a stud under clips *d* and *g*, to enter indentations in the plates *a*, for staying them against displacement, and near the ends of the branches of plates *a* they will be connected to plates *b c* by the usual slot in one and nib in the other. I make the plates *b c* wider in the middle than at the ends, and form an eye, *l*, in the end for fitting on a shackle-pin, *m*, having eccentric pivot-bearings *n*, by which it is pivoted in the shackle-frame *o*, so that it will turn and compensate by its eccentric throw the variations in the length of the springs in consequence of their expansion and contraction, and thus will prevent side thrusts on the side bars and rockers.

The dotted lines in Fig. 1 show by the curved line the lengthening of the spring under the load, and by the vertical line the compensating effect of the shackle-pin by turning on its eccentric pivots. In the case of the body resting on the ends of the upper part, *b*, of the spring, I arrange the shackle-pins *m* with their pivots at the lowest point in the normal position; but for the plates *c*, suspended from the side bars, I arrange the pivots uppermost in the normal position, which gives the best results in the action of the eccentric shackle-pin. In order to mount these eccentric shackle-pins in their bearings, I use separate angle-plates *q*, for the connection with the rockers *s*, and bolt said plates onto the rockers separately by bolts *t;* but the shackle to connect with the side bars, *u*, I make in two parts by separating the base-plate *v*, as shown in Figs. 5 and 6, and secure them together by the clip-bolts *w*, which pass through both parts of said base-plate.

I do not abandon or dedicate to the public any patentable feature herein set forth and not hereinafter claimed, but reserve the right to claim the same, either in a reissue of any pat-

ent that may be granted upon this application or in other applications for Letters Patent that I may make.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The bent plates *a*, the upper ones being slightly curved upward and the lower ones curved downward and upward, in combination with the upper curved plates, *b*, and the lower curved plates, *c*, both being curved coincidently with the plates *a* and upwardly at their outer ends, said plates *b* and *c* having eyes *l*, shackles having eccentrically-pivoted shackle-pins, side bars, and rockers, substantially as and for the purpose set forth.

2. The bent plates *a*, in combination with upper and lower plates, *b* and *c*, and being connected by clips *d* and *g*, said clips *d* being secured to clip-bars *e*, connected to plate *f*, and clips *g*, connected to clip-bars *i*, formed on the branches of the stay-brace *k*, substantially as described.

3. The combination, with a carriage-spring, of shackles to connect the spring to the side bars, rockers, or other parts, having shackle-pins pivoted eccentrically in said shackles, to compensate for the varying length of the springs, substantially as described.

4. The combination, with the carriage-springs, having eyes *l* at their ends, of the shackles, with their shackle-pins *m* fitting in the eyes *l* of the springs, and having the eccentrically-projecting pivots *n*, supported or pivoted in apertures in the plates *o* of the shackles, substantially as and for the purpose set forth.

JACKSON TAYLOR.

Witnesses:
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