(No Model.) 2 Sheets—Sheet 1.

W. J. BAYRER.

TINSMITH'S SHEARING DEVICE.

No. 344,074. Patented June 22, 1886.

Fig. 1.

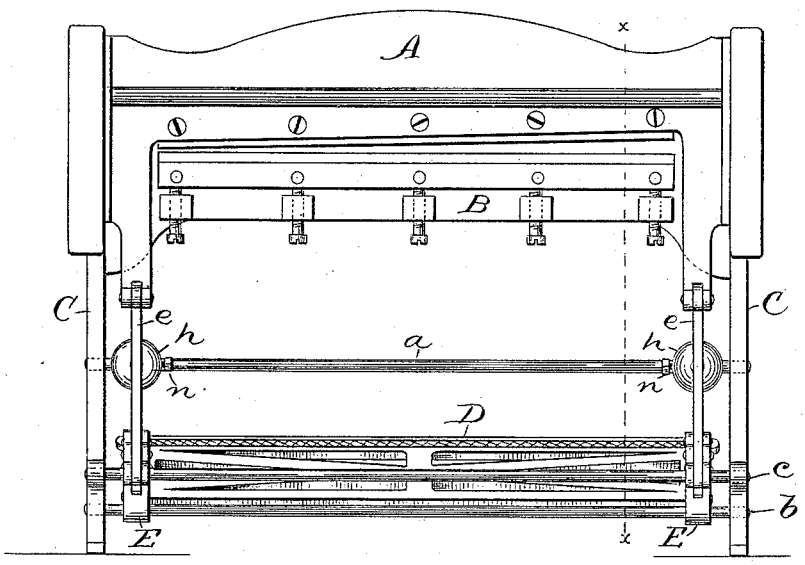
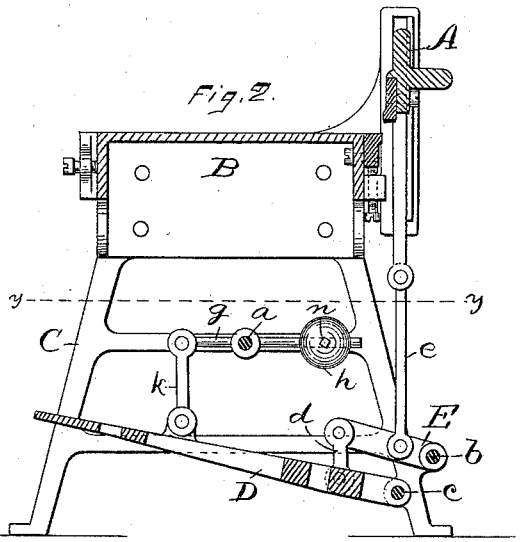


Fig. 2.



Witnesses,
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(No Model.) 2 Sheets—Sheet 2.

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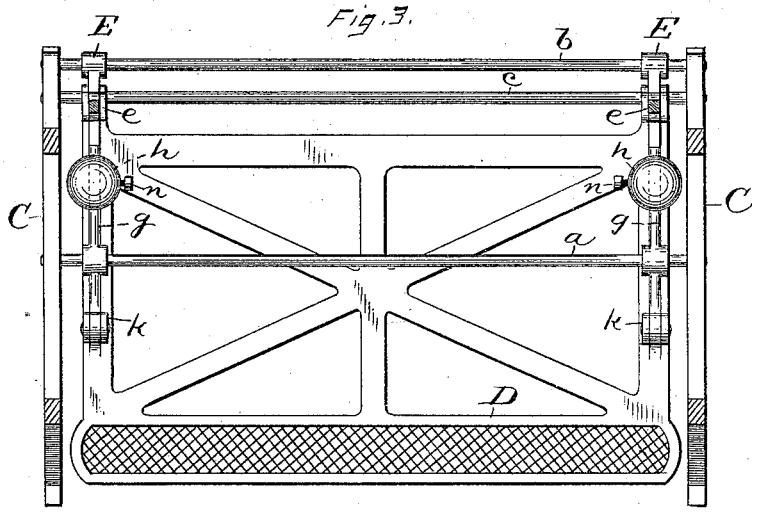
Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM J. BAYRER, OF SOUTHINGTON, CONNECTICUT, ASSIGNOR TO THE PECK, STOW & WILCOX COMPANY, OF SAME PLACE.

TINSMITH'S SHEARING DEVICE.

SPECIFICATION forming part of Letters Patent No. 344,074, dated June 22, 1886.

Application filed February 15, 1886. Serial No. 191,928. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. BAYRER, a citizen of the United States, residing at Southington, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Tinsmiths' Squaring-Shears, of which the following is a specification.

My invention relates to improvements in the operating mechanism for the slides of squaring-shears and analogous machines whose slide is reciprocated by a foot-treadle, and the objects of my invention are to draw the slide down with greater power and to improve the manner of raising the treadle.

In the accompanying drawings, Figure 1 is a rear elevation of a squaring-shear with my treadle mechanism attached. Fig. 2 is a transverse section thereof on line *x x* of Fig. 1, and Fig. 3 is a plan view of my operating mechanism, the frame of the shears being shown in section on the line *y y*, Fig. 2.

A designates the slide of the shears, B the bed, and C C the frame or legs which extend downward from the end of the bed. These are of ordinary construction, and consequently require no explanation.

Extending from leg to leg C C and firmly secured thereto I place three rods, *a b c*. Upon the rod *c* I pivot the treadle D. Above the treadle and substantially parallel thereto I pivot to the rod *b* a short lever, E, there being one such lever at each end of the machine, while the treadle is wide enough to reach from lever to lever. The other end of each of these levers is connected by a short pitman or link, *d*, Fig. 2, to the treadle D, and I connect the levers E E and press-slide A by means of the pitmen or links *e e*, the same being shown in transverse section in Fig. 3. This, it will be seen, gives me a compound lever at each end of the machine for exerting a powerful force upon the slide. To the rod *a* I pivot the levers *g g*, each having at one end a weight, *h*, while their opposite ends are connected with the treadle D, to the front end of said treadle, by means of the links *k*. The weights *h* may, if desired, be made adjustable on the levers and fastened in place by the set-screw *n*.

I do not claim, broadly, a weighted lever for raising the slide and treadle of squaring-shears, because the same is old when the weighted lever is arranged to act directly upon the press-slide. By my arrangement of weighted lever, connected with the forward part of the treadle, a much smaller weight will raise the treadle and slide.

I claim as my invention—

1. In squaring-shears or analogous machines, the combination of the slide, a treadle connected to said slide in a manner substantially as described, and a weighted lever connected to said treadle near its free end by an independent pitman, substantially as herein described, and for the purpose specified.

2. The combination of the frame of squaring-shears, the treadle D, levers E E, pitmen *d d* and *e e*, and the slide A, substantially as described, and for the purpose specified.

WILLIAM J. BAYRER.

Witnesses:
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