

(No Model.)

2 Sheets—Sheet 1.

W. J. BAYER.

TINSMITH'S SHEARING DEVICE.

No. 344,074.

Patented June 22, 1886.

Fig. 1.

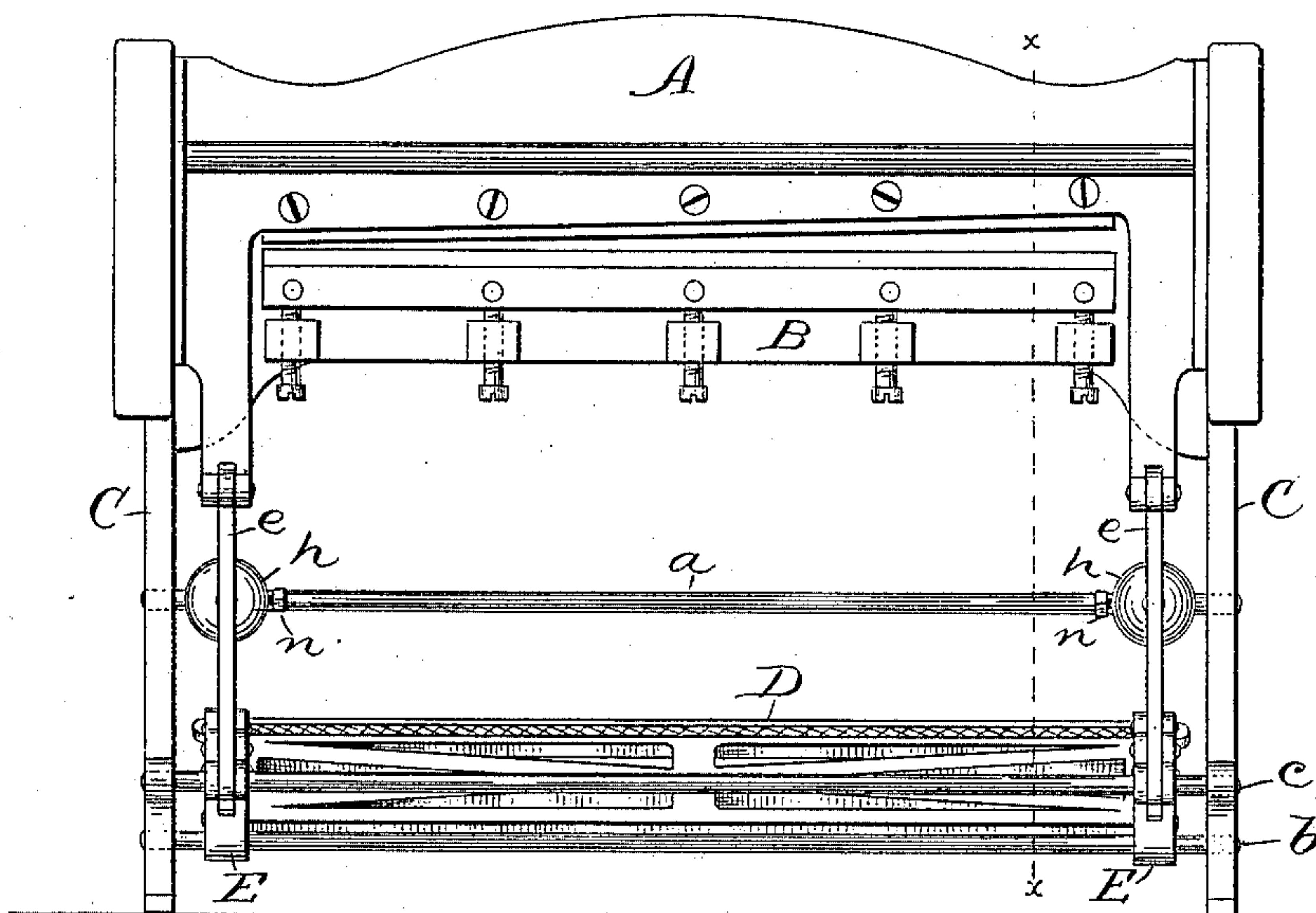
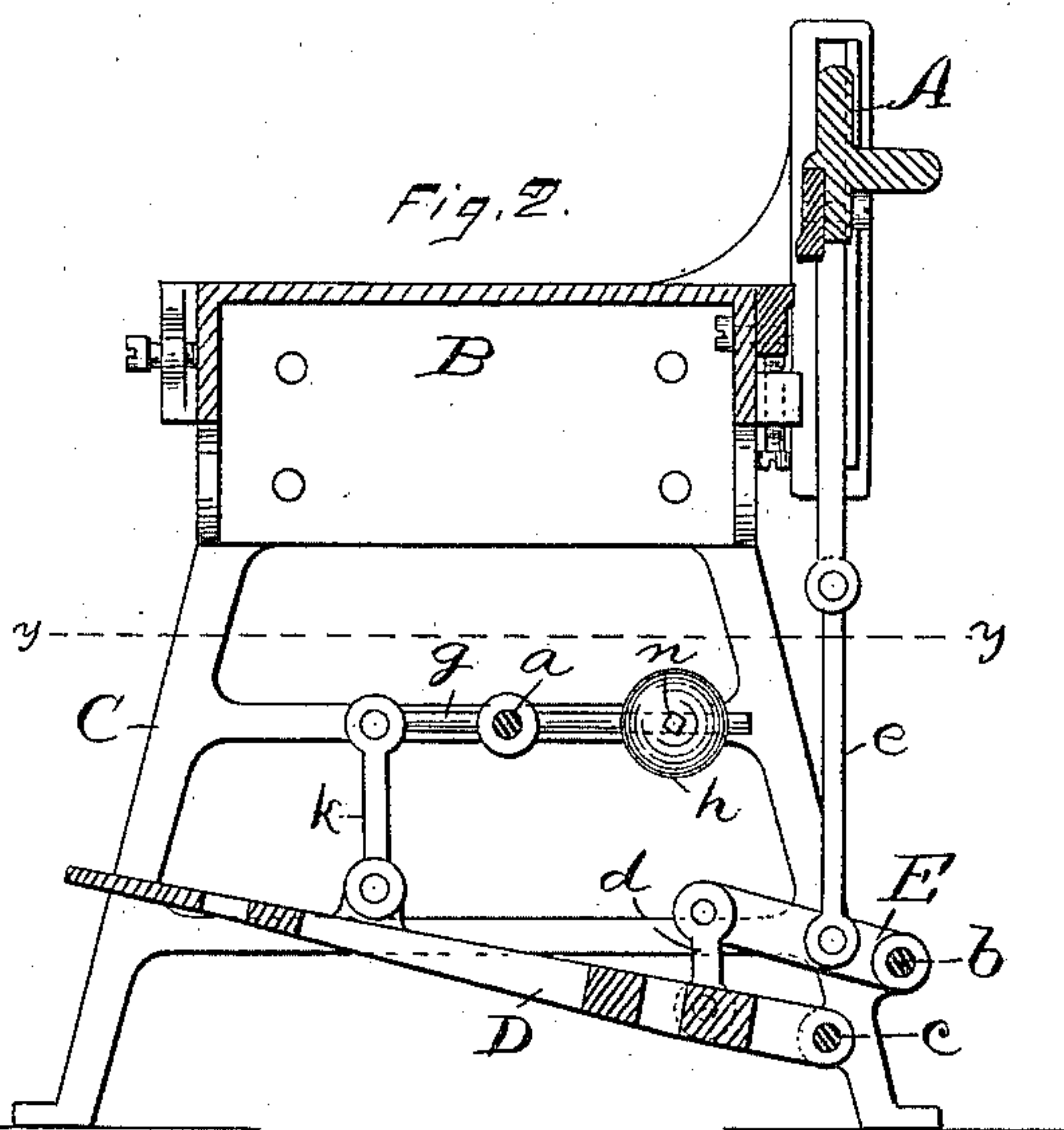


Fig. 2.



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John Edwards Jr.  
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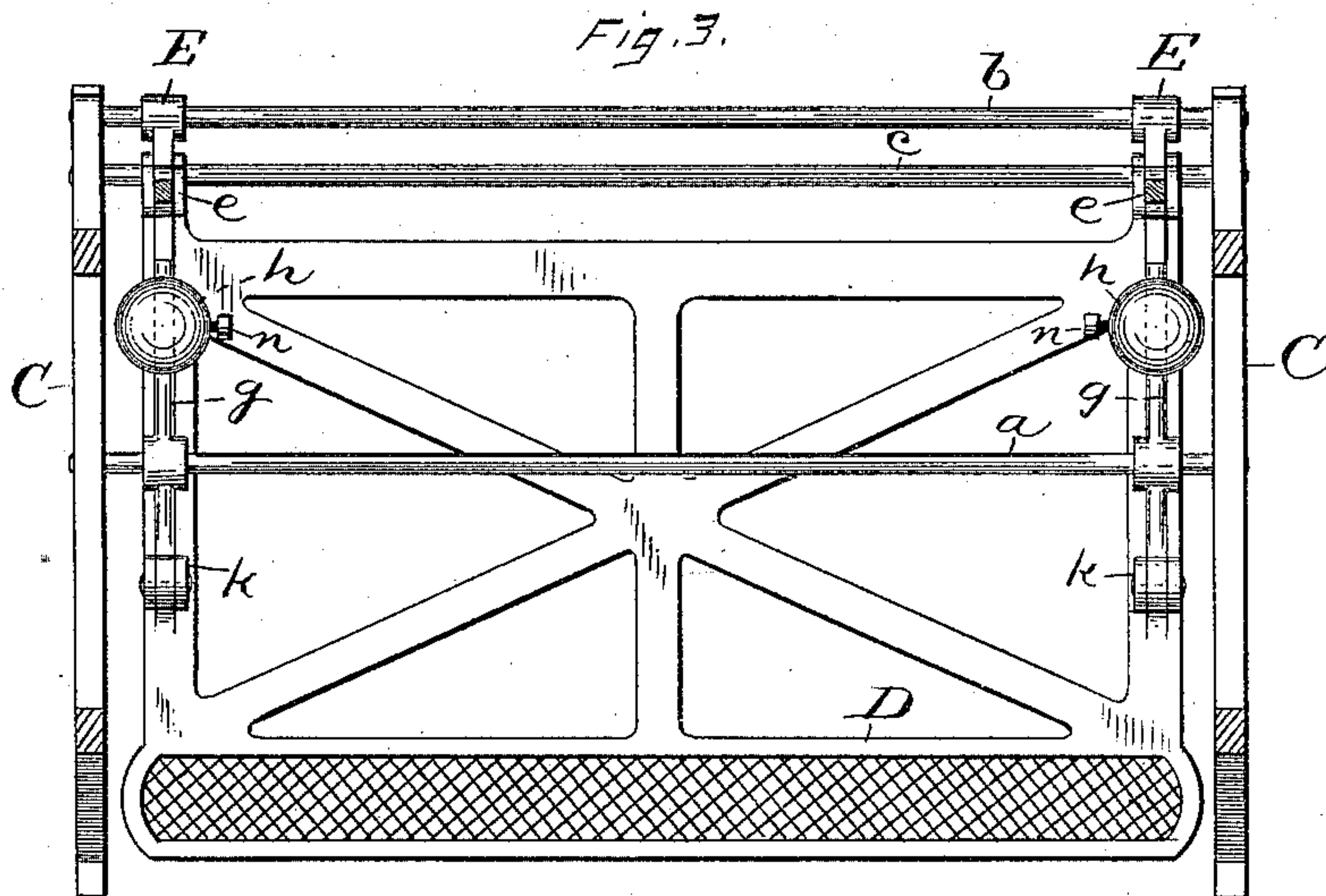
Inventor:  
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By James Shepard. Atty.

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# UNITED STATES PATENT OFFICE.

WILLIAM J. BAYRER, OF SOUTHTON, 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 South-  
ington, in the county of Hartford and State of  
5 Connecticut, have invented certain new and  
useful Improvements in Tinsmiths' Squaring-  
Shears, of which the following is a specifica-  
tion.

My invention relates to improvements in  
10 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 im-  
15 prove 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 trans-  
verse section thereof on line *x x* of Fig. 1, and  
20 Fig. 3 is a plan view of my operating mech-  
anism, 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  
25 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  
30 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  
35 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 40  
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 le-  
vers *g g*, each having at one end a weight, *h*,  
while their opposite ends are connected with 45  
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 50  
for raising the slide and treadle of squaring-  
shears, because the same is old when the  
weighted lever is arranged to act directly up-  
on the press-slide. By my arrangement of  
weighted lever, connected with the forward 55  
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 ma-  
chines, the combination of the slide, a treadle 60  
connected to said slide in a manner substan-  
tially as described, and a weighted lever con-  
nected to said treadle near its free end by an  
independent pitman, substantially as herein  
described, and for the purpose specified. 65

2. The combination of the frame of squar-  
ing-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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A. M. LEWIS.