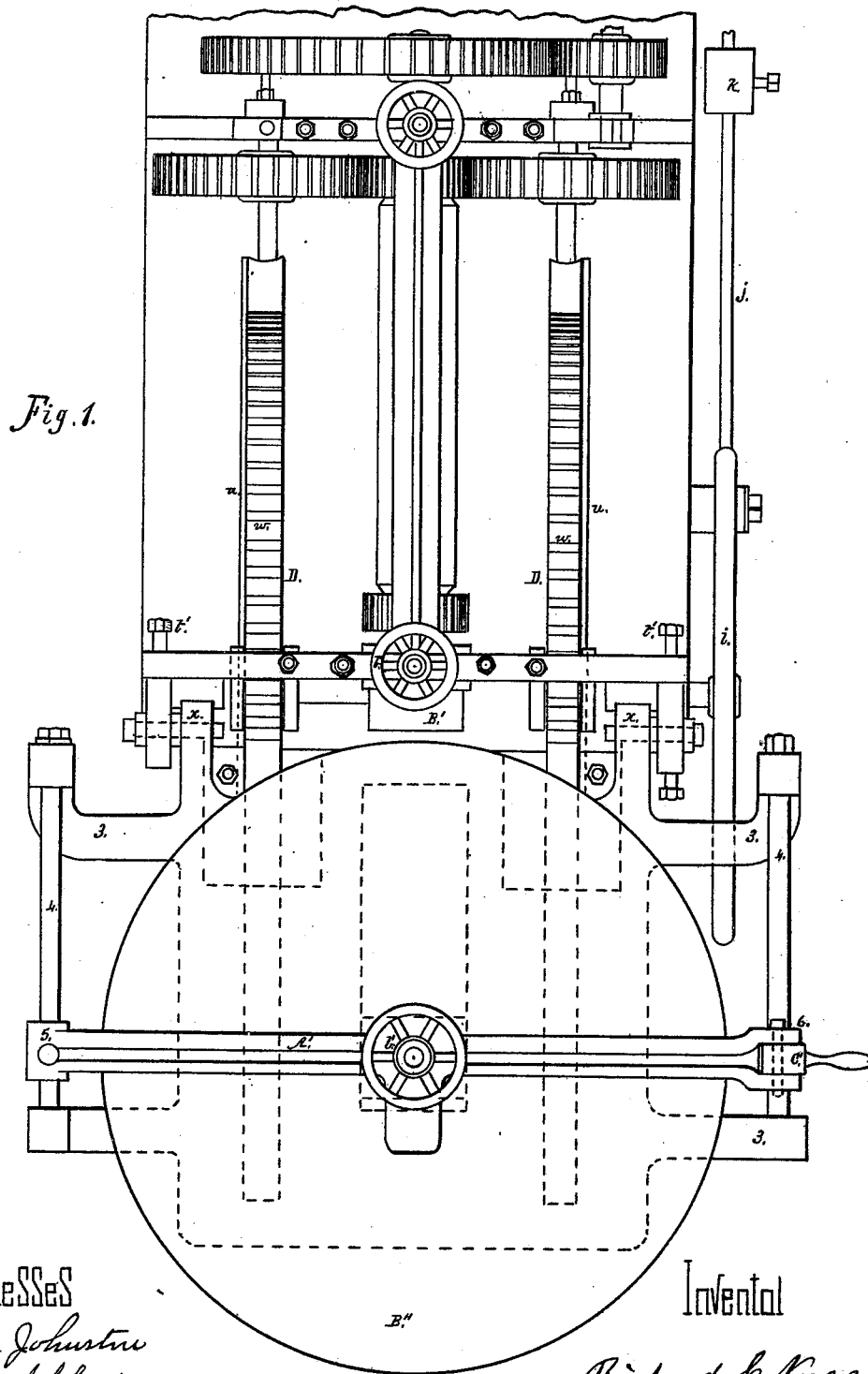


R. C. NUGENT.
Machine for Flanging Boiler-Heads.

No. 213,585.

Patented Mar. 25, 1879.

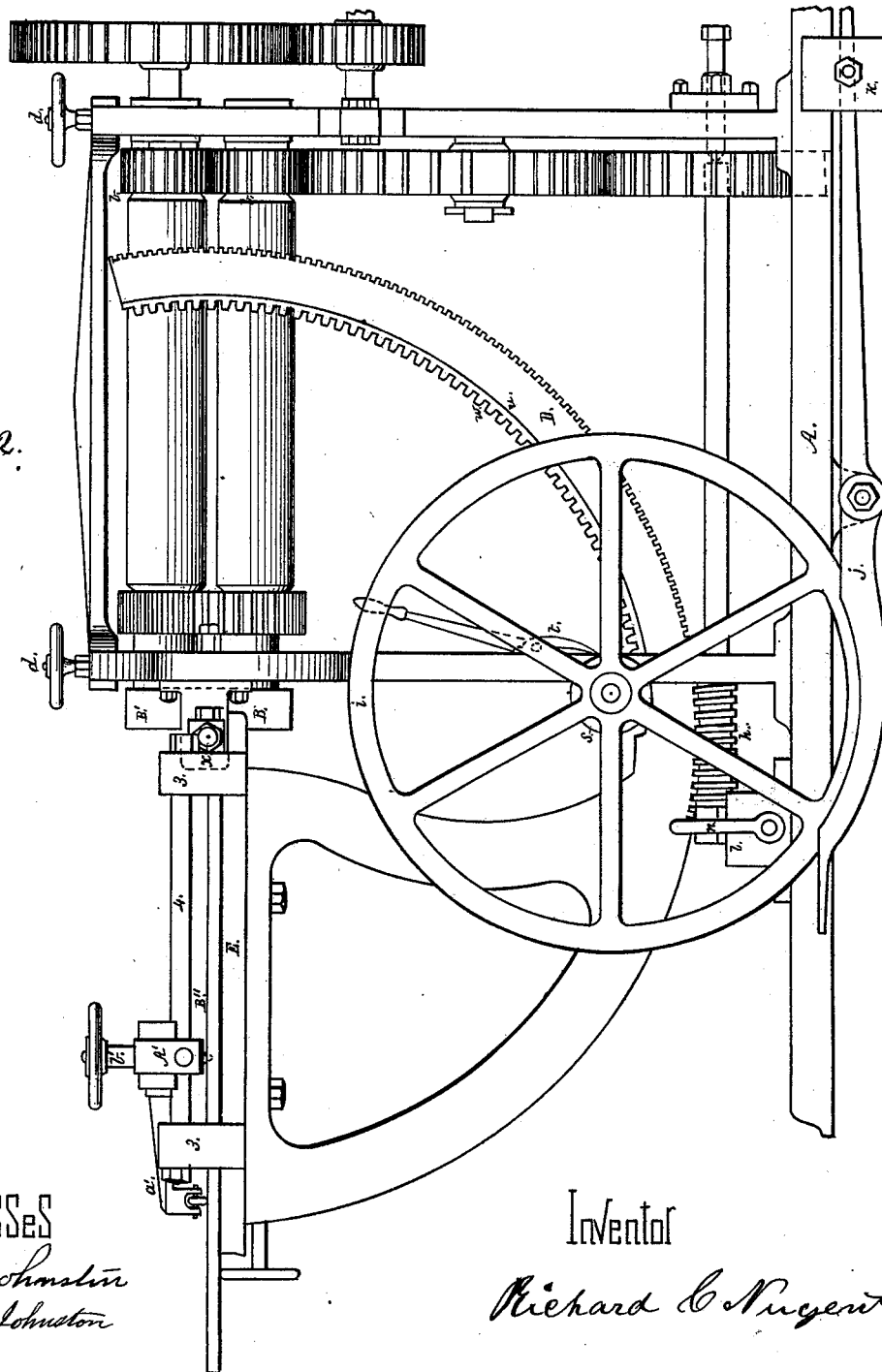


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Fig. 2.



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Fig. 3.

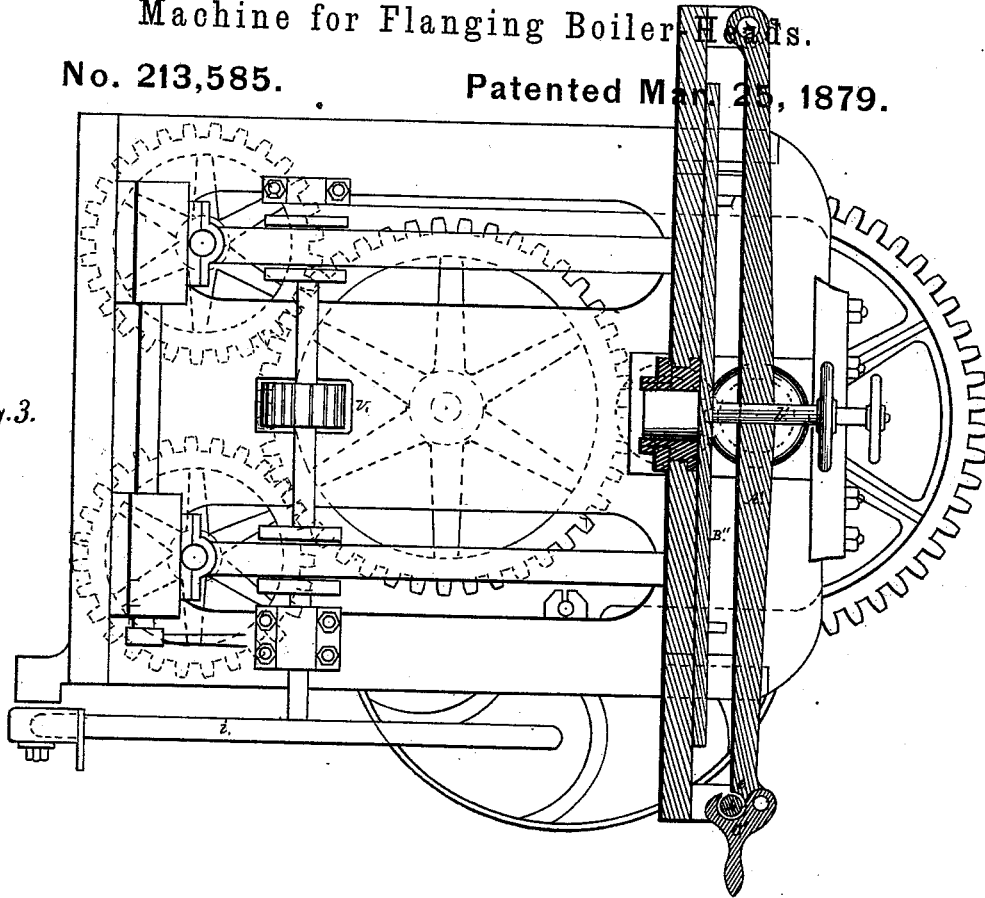


Fig. 7.



Fig. 4.

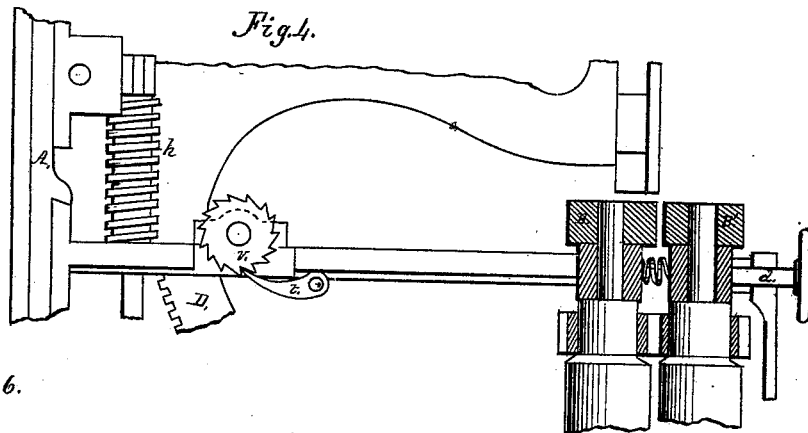


Fig. 6.

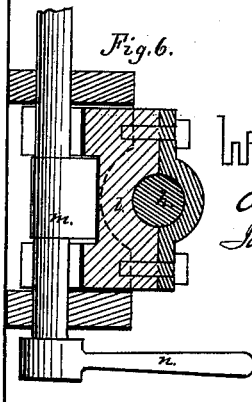
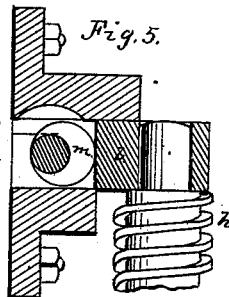


Fig. 5.



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IMPROVEMENT IN MACHINES FOR FLANGING BOILER-HEADS.

Specification forming part of Letters Patent No. **213,585**, dated March 25, 1879; application filed March 29, 1877.

To all whom it may concern:

Be it known that I, RICHARD C. NUGENT, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Machines for Flanging Boiler-Heads; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in machines for flanging boiler-heads, and is an improvement upon the machine for which Letters Patent were granted me August 17, 1875, No. 166,715; and consists, first, in combining with the table described in said patent a clamping-bar and centering-screw; second, in providing the segments used for elevating the table each with a tread and wheels for holding them in mesh with the operating-gear.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, which form part of my specification, Figure 1 is a top view or plan of the machine. Fig. 2 is a side view of the same. Fig. 3 is an end view of the same. Figs. 4, 5, and 6 are detailed views; and Fig. 7, a section of the segment D.

In the accompanying drawings, A represents the frame of the machine, of any suitable shape or proportion for supporting in their journals two adjustable rollers, B B', arranged directly one above the other. These rollers are connected by gear-wheels *b*.

The journal-boxes of the rolls are adjusted by means of screws *d*, and between said journals may be arranged springs, for the purpose of keeping the rolls apart.

The table E is pivoted at *x*, the pivot or hinges being adjustable through the medium of set-screws *v*. The object of making the table adjustable is to adapt the machine to the different thicknesses of the plates used in the construction of boiler-heads.

The center of the revolving disk B'' is varied in distance from the ends of the rolls B B' in proportion to the thickness of the boiler-

plate, the greatest distance being when the thickest plate is used.

The table is provided with projecting arms 3, in which are secured bars 4, to one of which, at 5, is pivoted clamping-bar A', which, at 6, is held to the other bar by means of a pivoted clamp, C'. (Clearly shown in Figs. 1 and 3.)

The clamping-bar A' can be moved along on the bars 4, for the purpose of adjusting the screw *b'* to the center or axis of the revolving disk B''.

The clamping-bar A' is provided with an arm, *a'*, and centering and holding screw *b'*. The outer end of the arm *a'* is provided with a friction-roller, which bears on the plate of metal while being rotated by the action of the rolls B B'.

The segments D are provided with ways or treads *u*, on which travel the flanges of wheel *s*, for holding the segments in gear with the endless screw *h*, the axis of which is held at one end in adjustable bearing *l*, adjusted through the medium of an eccentric, *m*, and lever *n*, the construction and arrangement of which are clearly shown in Figs. 5 and 6. The upper sides of the segments D are provided with gear-teeth *w*, which mesh into teeth on the wheels *s*, the axis of which is provided with ratchet-wheel *v*, into the teeth of which drops a pawl, *t*.

The hand-wheel *i*, in connection with wheel *s* and teeth *w* on the segments D and the ratchet-wheel *v* and pawl *t*, are used for manipulating the table E.

The machine is provided with a weighted brake-lever, *j*, having adjustable weight *k*, by means of which lever acting on the hand-wheel *i* will prevent any sudden, rapid, and jarring movement of the pivoted table when lowering it back to its normal condition. The ratchet-wheel and pawl will hold the table E' in a fixed position at any desired angle. In all other respects the machine is constructed and operates substantially in the manner described in Letters Patent granted to me August 17, 1875, and numbered 166,715.

Having thus described the nature, construction, and operation of my improvement, what I claim as of my invention is—

1. In a machine for flanging boiler-heads, the pivoted table E, provided with the adjustable clamping-bar A', having arm *a'* and centering and hold screw *b'*, in combination with the rollers B B', substantially as herein described, and for the purpose set forth.

2. In a machine for flanging boiler-heads, the segments D, having gear-teeth *w* and

tread *u*, in combination with the wheels *s*, pivoted table E, and rollers B B', substantially as herein described, and for the purpose set forth.

RICHARD C. NUGENT.

Witnesses:

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JAMES J. JOHNSTON.