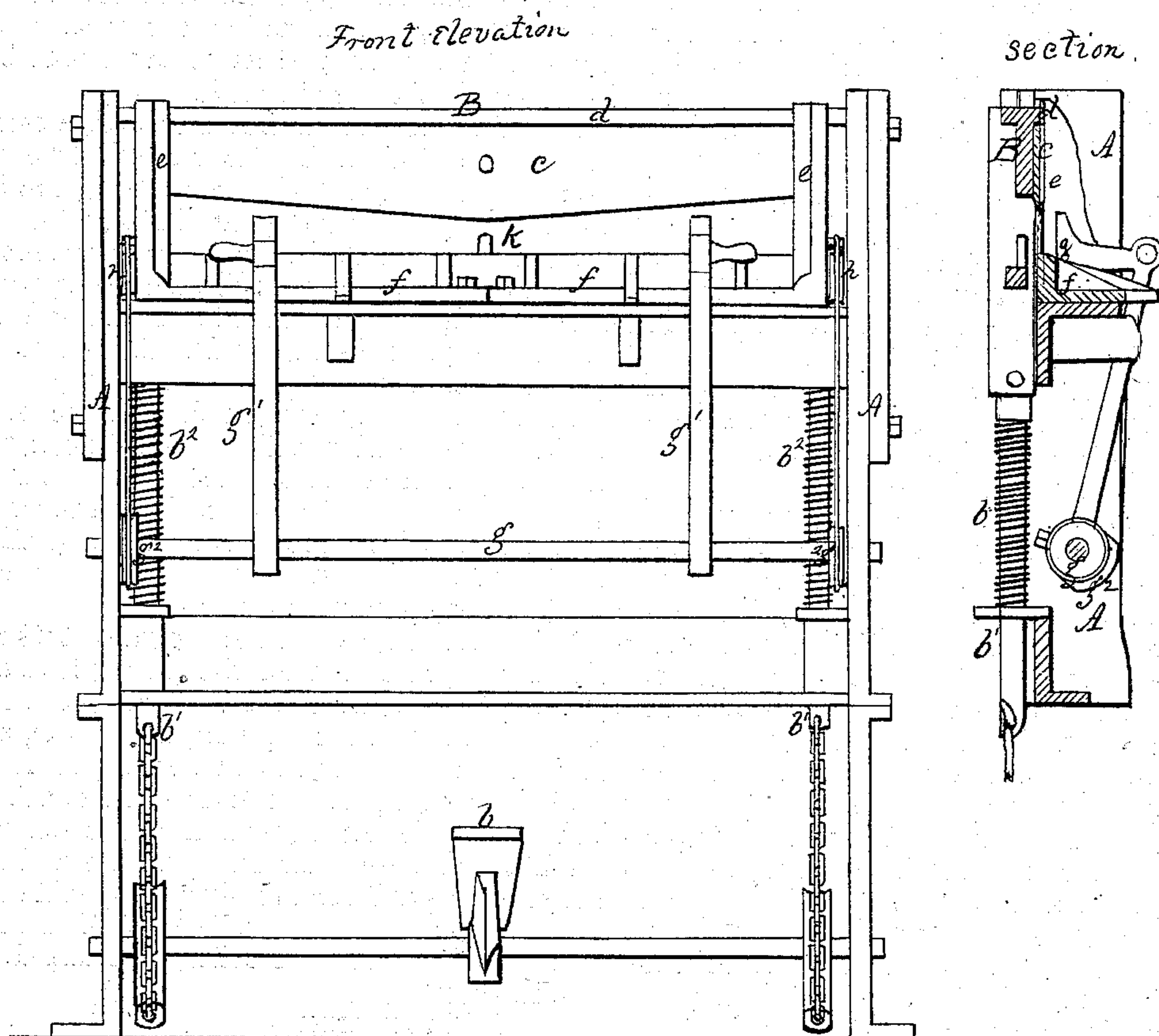


L. R. CLARK & J. C. SMITH.

Improvement in Machinery for Jointing Staves.

No. 125,440.

Patented April 9, 1872.



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UNITED STATES PATENT OFFICE.

LINUS R. CLARK, OF UTICA, AND JOHN C. SMITH, OF SYRACUSE, N. Y.

IMPROVEMENT IN MACHINERY FOR JOINTING STAVES.

Specification forming part of Letters Patent No. 125,440, dated April 9, 1872.

Specification describing certain Improvements in Machinery for Jointing Staves, invented by LINUS R. CLARK, of Utica, and JOHN C. SMITH, of Syracuse, all of the State of New York.

Our invention is devised for the purpose of giving to the stave the proper curve for the bilge in jointing, whether the stave be wide or narrow, the curve being determined by the width of the stave, which causes it to be greater the wider the stave to be jointed.

The machine consists of a sufficient frame to sustain the parts; it is designated by the letter A. In frame A a gate, B, slides in a vertical line, like a saw-gate. This gate B is made stout and strong. It is forced downward by a treadle, *b*, connected with it by side rods *b*¹, and is raised by a spring, *b*².

It is proper to note here that this mode of operating the gate is not a part of our invention, and may be varied in any convenient and efficient mechanical way.

To this gate a long thin knife, *c*, is bolted at the center of its length, the ends being detached therefrom. The upper part or back of the knife rests against a projection, *d*, standing out from the face of the gate above it, which relieves it from undue strain in cutting. The lower or cutting-edge of the knife is made curved, so that its center first strikes the stave. The ends of the knife, which are free from the gate, work up and down in guides *e* projecting up from the ends of the bed, on which the stave is laid to be cut. The bed *f* is divided at its center, and each half is affixed to the frame by a pivoting-bolt at that point, the ends being free to be drawn back from the straight line, as required. Near the lower part of the frame there is a shaft, *g*, from which two arms, *g*¹, project upward in a radial line; and

on the top of each there is a gauge-piece, *g*³, that bears against the outer edge of the stave on the bed. From the same shaft *g* two short arms or cams, *g*², project, and are connected by chains over pulleys *h*, pivoted to the frame above to the ends of the bed, which they cause to move horizontally from and toward the knife-gate, by which action the ends of the knife are also moved so as to cause it to bow as the ends of the bed recede.

It is evident that a crank or wedge might here be substituted for the pulley. The particular mechanical device connecting the bed and knife with the gauge are immaterial.

By this construction and arrangement of parts it will be seen that the degree to which the knife is curved depends on the width of the stave jointed—the wider the stave the greater the curve.

To avoid cutting too much from the width of the stave we affix to the gate a stop, *k*, that stands up behind the bed and stops the stave from being put too far under. When the knife comes down upon the stave this stop slides down out of the way.

We claim as our invention—

1. The knife *c*, secured to the gate at its center only, a projection on the gate above supporting its loose ends and connecting the ends of the knife with the gauging apparatus, substantially as and for the purposes specified.

2. The gauge *g*³ and its connections with the bed and knife, for determining the curve of the knife and bed according to the width of the stave, as and for the purpose specified.

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