

S. Adams,
Wire-Working Tool,
No 21,866, *Patented Oct. 26, 1858.*

Fig. 1.

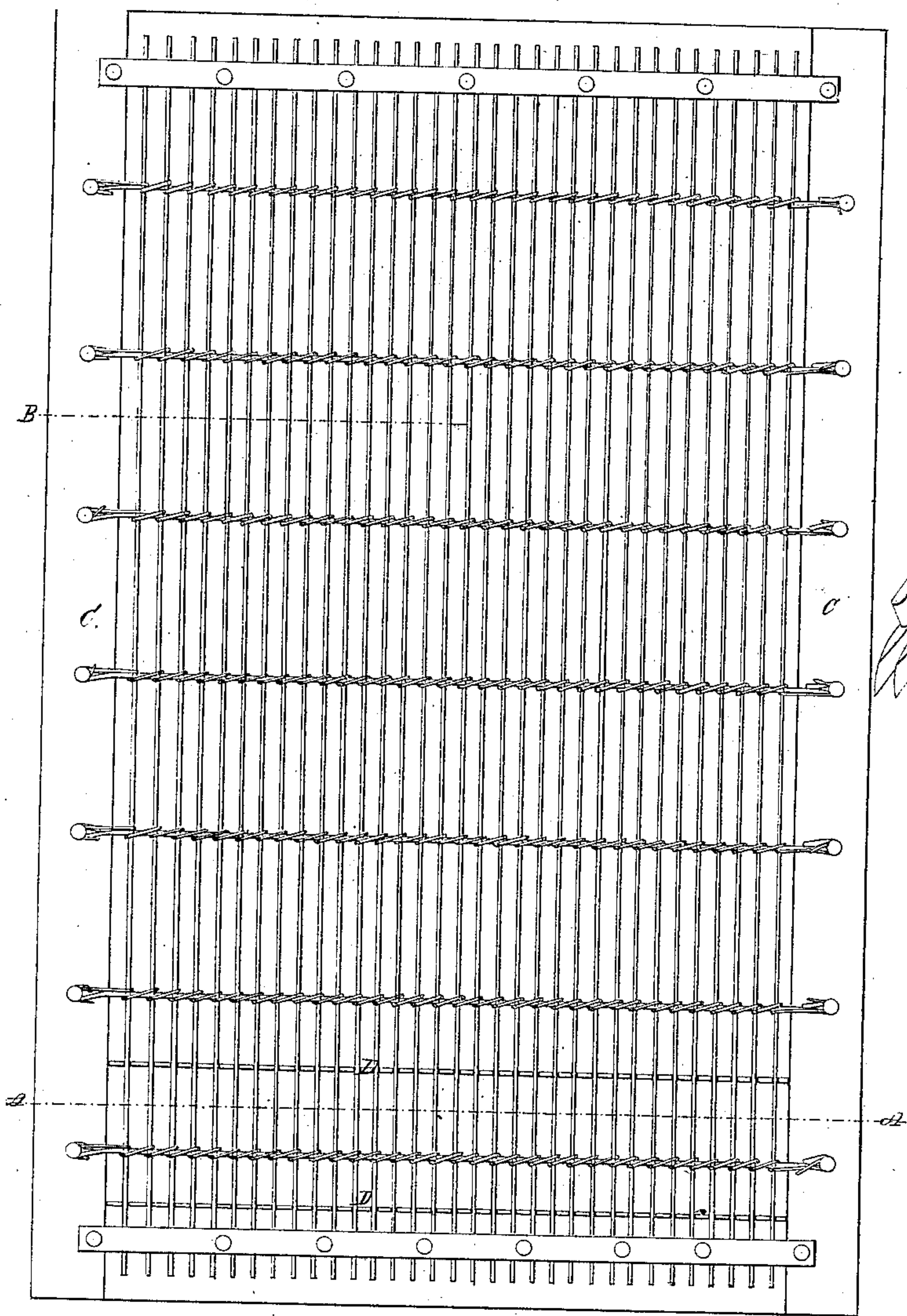


Fig. 4.

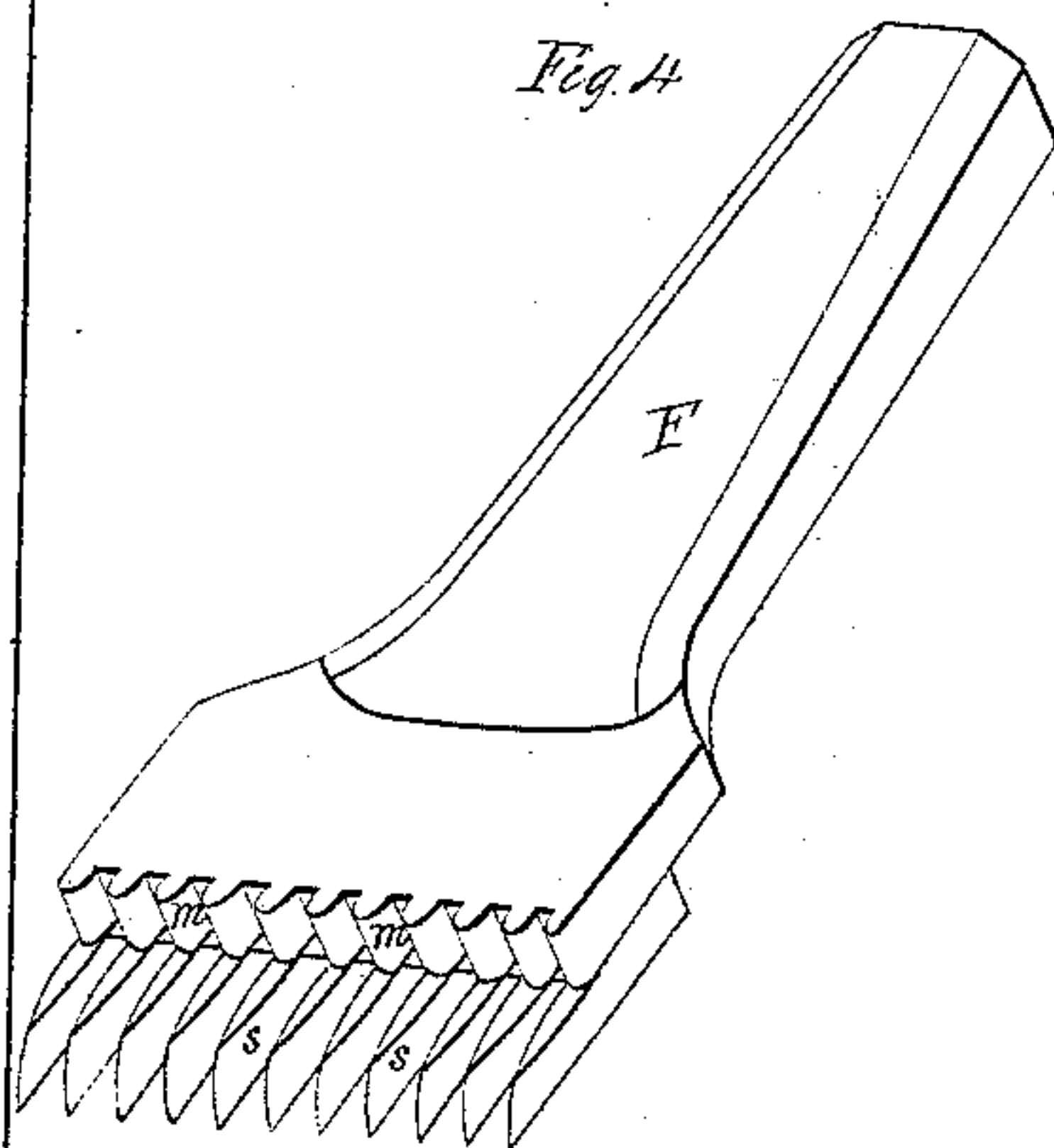


Fig. 2.

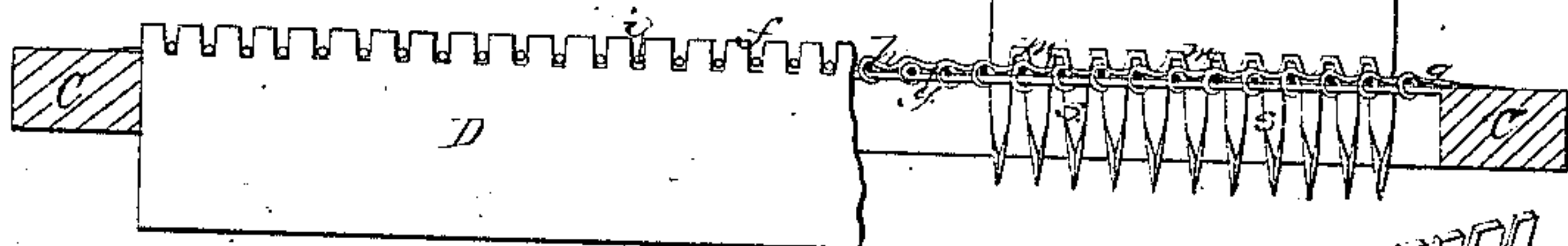
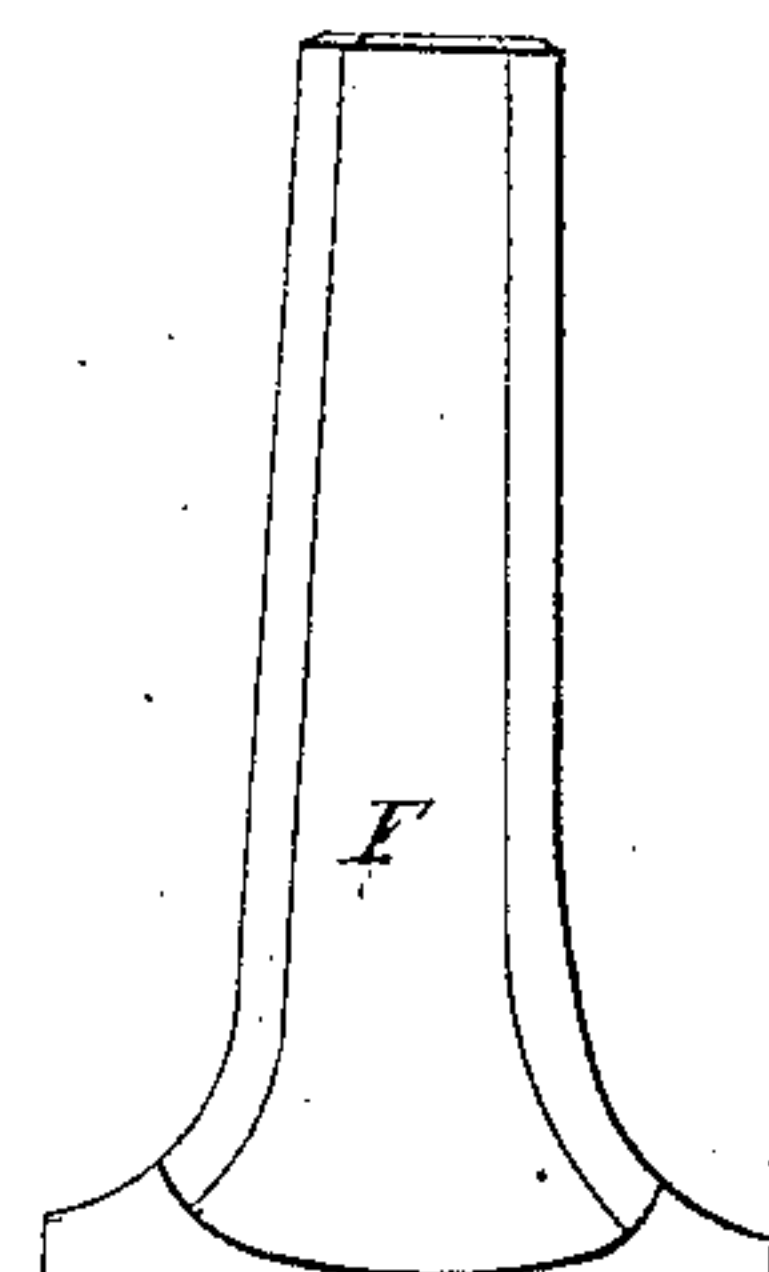


Fig. 3.

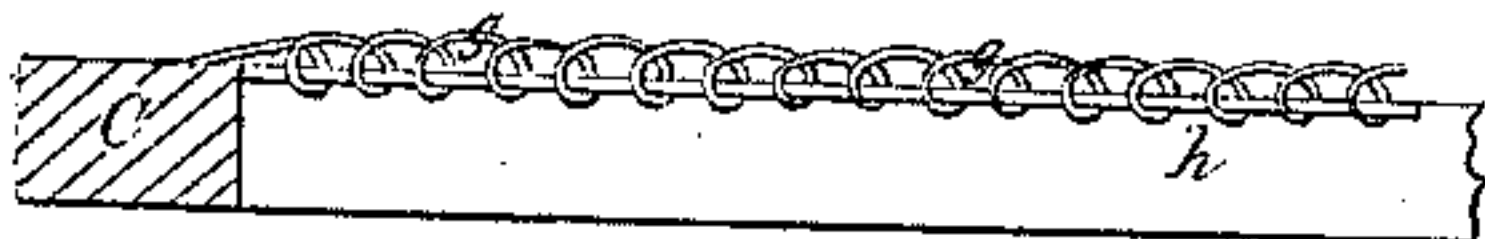
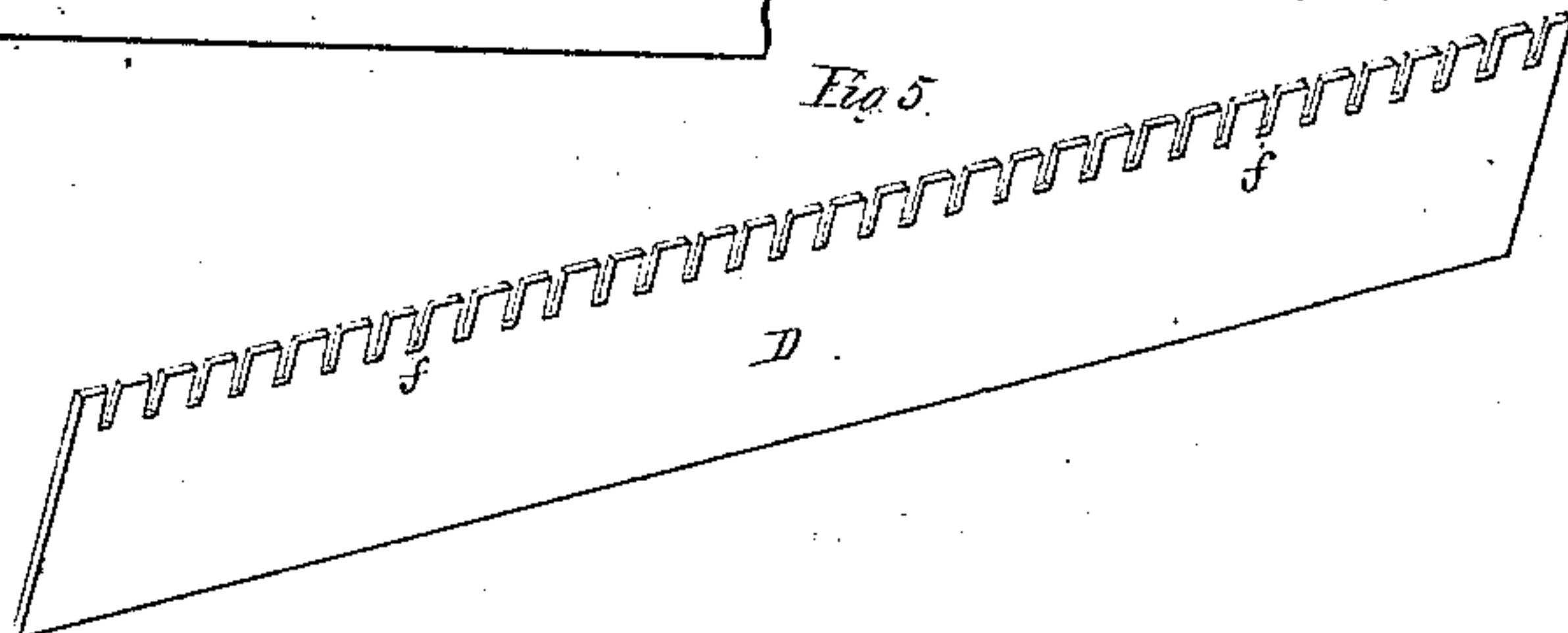


Fig. 5.



UNITED STATES PATENT OFFICE.

SANFORD ADAMS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN TOOLS FOR MANUFACTURING WIRE RIDDLES.

Specification forming part of Letters Patent No. 21,866, dated October 26, 1858.

To all whom it may concern:

Be it known that I, SANFORD ADAMS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Tool for the Purpose of Making Wire Riddles and Screens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan of a riddle or screen; Fig. 2, a section upon the line A A of Fig. 1, showing my improved tool in operation; Fig. 3, a section upon the line B B of Fig. 1, showing the three wires as they are woven together, but before they have been fastened securely together by the tool which forms the subject of this invention; Fig. 4, a perspective view of the tool; Fig. 5, a view of one of the guides which is employed in making the riddles.

In the construction of riddles for screening and for fanning and sorting machines it is very important that the wires be of a uniform and unvarying distance from each other, that all the meshes of a particular sieve may be of an exact and equal width, and it is equally important not only that the meshes be originally formed of an exact and uniform width, but that they be preserved so until the screen be worn out.

To accomplish this end is the object of my present invention, which consists in a peculiar tool, the operation and construction of which will now be described.

In the said drawings, *c'* is the frame of the riddle, across which are placed temporarily the guides D. (Seen in plan in Fig. 1, in elevation in Fig. 2, and in perspective in Fig. 5.) Within the notches *f* of these guides are laid the longitudinal wires *i*, as seen in section in Fig. 2. Beneath these is then laid the traverse or supporting wire *h*, the two sets being bound together by a suitable wire, *g*, in the custom-

ary manner. In order, now, to secure the three wires *i*, *h*, and *g* so firmly that they shall not be displaced by use, and to do this without displacing the wires *i*, the tool represented in Figs. 2 and 4 is employed. Attached to the handle or shank F are the teeth *m*, and to the back of these the longer points or teeth *s*, there being an equal and corresponding number of the two sets of teeth, both the long and short teeth being of the width of the meshes between the wires, and the distance between the teeth just sufficient to accommodate the longitudinal wires *i*. When used, the riddle is placed upon the edge of a cast-iron block, so that the wire *h* shall lie just over the edge. The tool is then applied, as in Fig. 2, the long teeth *s* passing between the longitudinal wires *i*, and the teeth *m* directly over the wires *h* and *g*. The tool is then struck with a hammer, and the wire *g* is forced down between each longitudinal wire, Fig. 2. The three wires are thus prevented from moving with respect to each other as required. One of the guides D is then moved sufficiently far along to allow the insertion of a new transverse wire, *h*, and to determine the position of the wire *i*, while the binding-wire *g* is put in, and so on in succession each transverse wire is inserted and bound and fastened, as described.

For circular riddles the tool should be curved to correspond to the curve of the riddle or screen to be operated upon.

What I claim as my invention, and desire to secure by Letters Patent, is—

The within-described tool for manufacturing riddles, having teeth *m* and *s*, operating in the manner substantially as set forth.

SANFORD ADAMS.

Witnesses:

THOS. R. ROACH,

P. E. TESCHEMACHER.