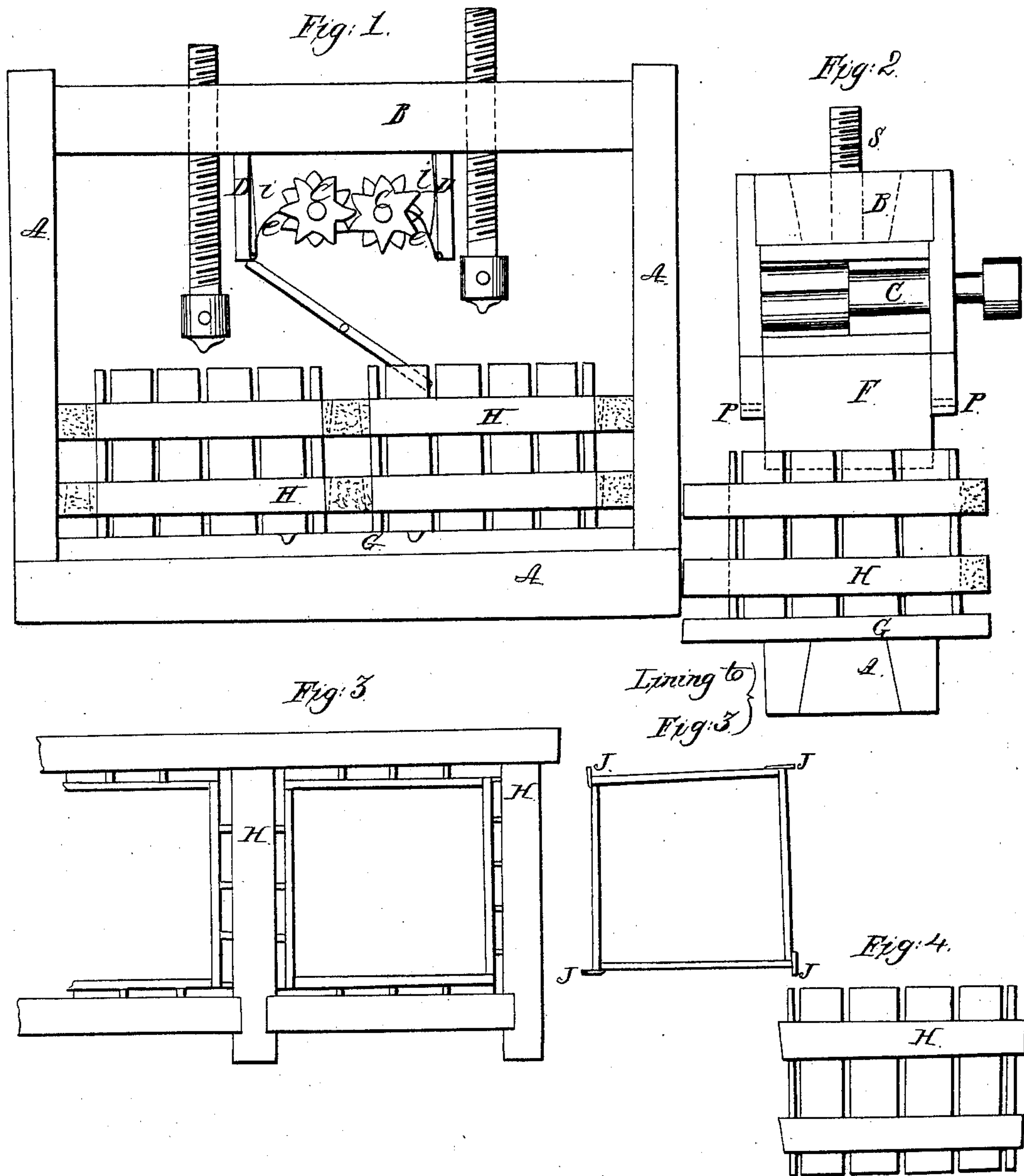


M. Stevens,

Cider Press.

N^o 20,220.

Patented May 11, 1858.



UNITED STATES PATENT OFFICE.

M. STEVENS, OF LUCAS, OHIO.

CIDER-MILL.

Specification of Letters Patent No. 20,220, dated May 11, 1858.

To all whom it may concern:

Be it known that I, MICHAEL STEVENS, of Lucas, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Cider-Mills; and I hereby declare the following to be a full and true description of the same, reference being had to the drawings herewith presented, which drawings constitute a part of said description.

The principle of my invention consists in so constructing and arranging the several parts of the mill and press or presses as to perform more work with less manual labor than what can be done in mills constructed in the old way.

In order to enable others to make and use my said invention I proceed to describe the same as follows, see the accompanying drawings.

Figure 1 is an elevation of the mill and presses having the front board of the mill removed in order to show the interior arrangement of the parts. (A A,) is the standing part of press and mill. B is the beam. S, S, are the screws. *c c* are cylinders or rolls being indented so as to gear together and placed so near as that the cog shall come within $\frac{1}{8}$ of an inch of the bottom of the dent, (more or less as required.) The cogs extend one half the length of the cylinder, and then the cogs on the other half are placed opposite to the spaces or indentations of these. Thus one cog comes to the line of centers while the other on the other half are at the greatest distance giving the same steady motion as it would if twice the number of cogs had been used on the whole length. The advantage of this construction is that it gives large spaces for the apples to enter between the rolls. I do not confine myself to the use of this particular form of mill for all purposes but in some cases I use a different form of cogs on the cylinder, as for instance where it is convenient to have a high speed and smaller teeth may be used having a plane or concave back for the apples to rest against. The lower part of the frame is occupied by the presses. Each press is provided with a movable lining of thin boards or other material so arranged

as to be easily fitted in and can readily be taken out while the pulp is in the press. The object of this is to keep the pulp in its juice for a considerable time before pressing it out. It has been found that if the apples are ground and immediately pressed the cider will be pale and watery but if allowed to steep a few hours, (more or less according to temperature) the liquor dissolves more of the saccharine parts of the fruit and is found to be more rich and finer flavored. This construction and arrangement of the press is of importance in making the finest quality of cider.

Fig. 3 shows the manners of adjusting the lining of the press so as to retain the liquor a sufficient time, and then by loosening the boards and sliding them upward I take them out and let the pressure on. Each board is fitted so as to lap by the edge of the next in order and is pressed close by the small key or wedge (J, and J,) against its edge. See a top view at Fig. 3.

(D and D) are the sides of the mill (*e* and *e*) are two cleavers being hinged to the bottom of the sides of the mill (D and D) and extending upward are bent forward so as to hook in to the dents of the cylinders. As the cylinders revolve each cog presses back the cleaver and a spring (*i*) is placed back of the cleaver and presses it forward. This cleaver is broad enough to clear the half length of the cylinder and another performs the same office for the other half.

Fig. 2 is a side view of the same having the side D of the mill removed in order to show the cylinders.

Similar letters denote the same parts in the several figures.

It has been common in using the old fashion mill to employ an attendant constantly to clear the rolls but this device performs that work automatically and the pulp is then conveyed into the press by the transferring board F, which being supported on pivots at P can be adjusted either to convey the same to the right or left at pleasure. By this means I save all the manual labor of clearing the mill and of conveying the material to the press. The advantage of having two presses is in being enabled to keep

the mill in constant operation, as one press can be filling while the other is pressing.

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

- 5 The arrangement of the several parts for the purpose of retaining the liquor and in the manner herein set forth.

In testimony whereof I hereto set my name in presence of two witnesses.

MICHAEL STEVENS.

Witnesses:

H. I. SMITH,
SOLOMON SMITH.