

T. G. OTTERSON.

FRUIT-JAR.

No. 174,638.

Patented March 14, 1876.

Fig. 1.

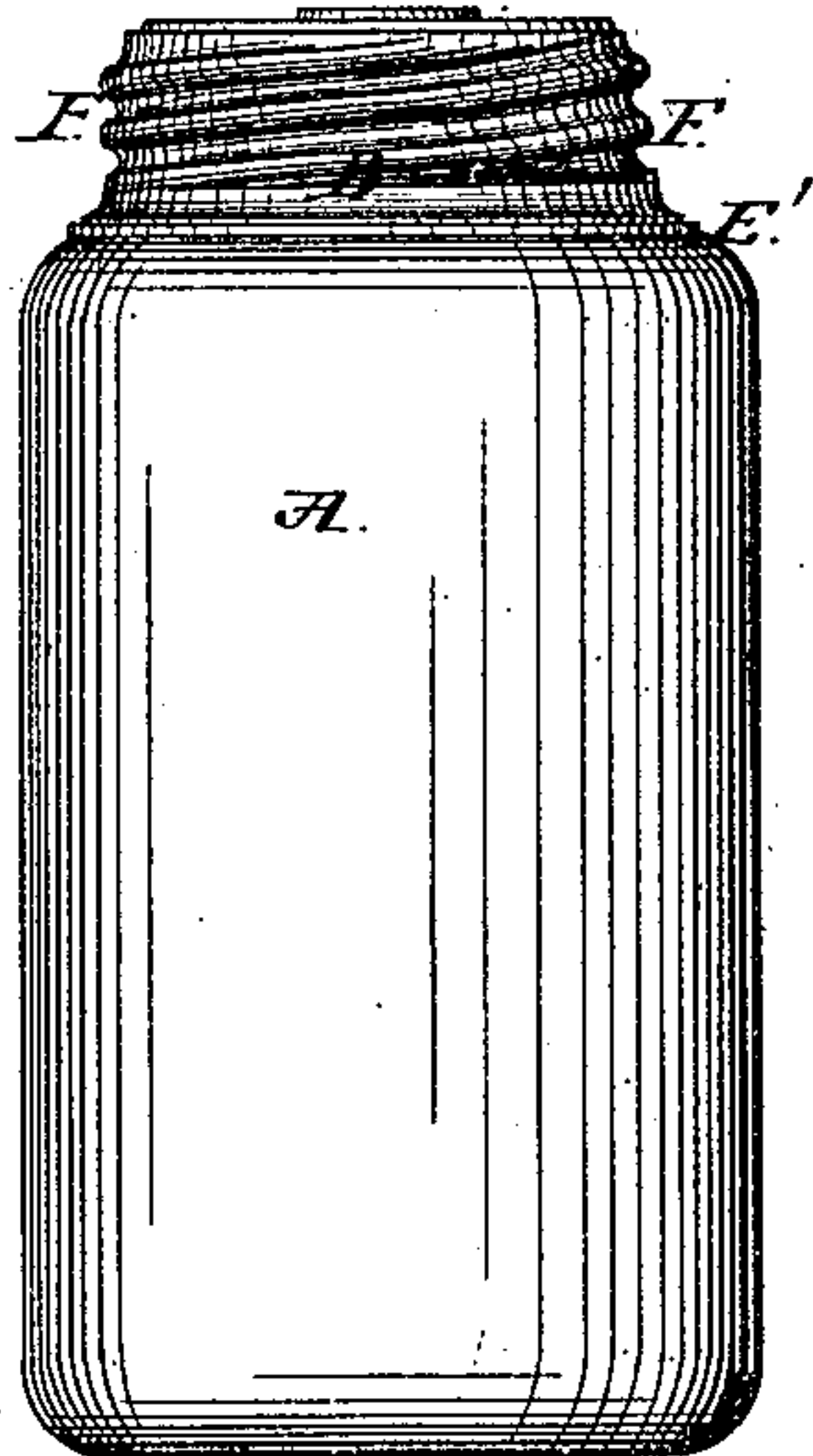


Fig. 2.

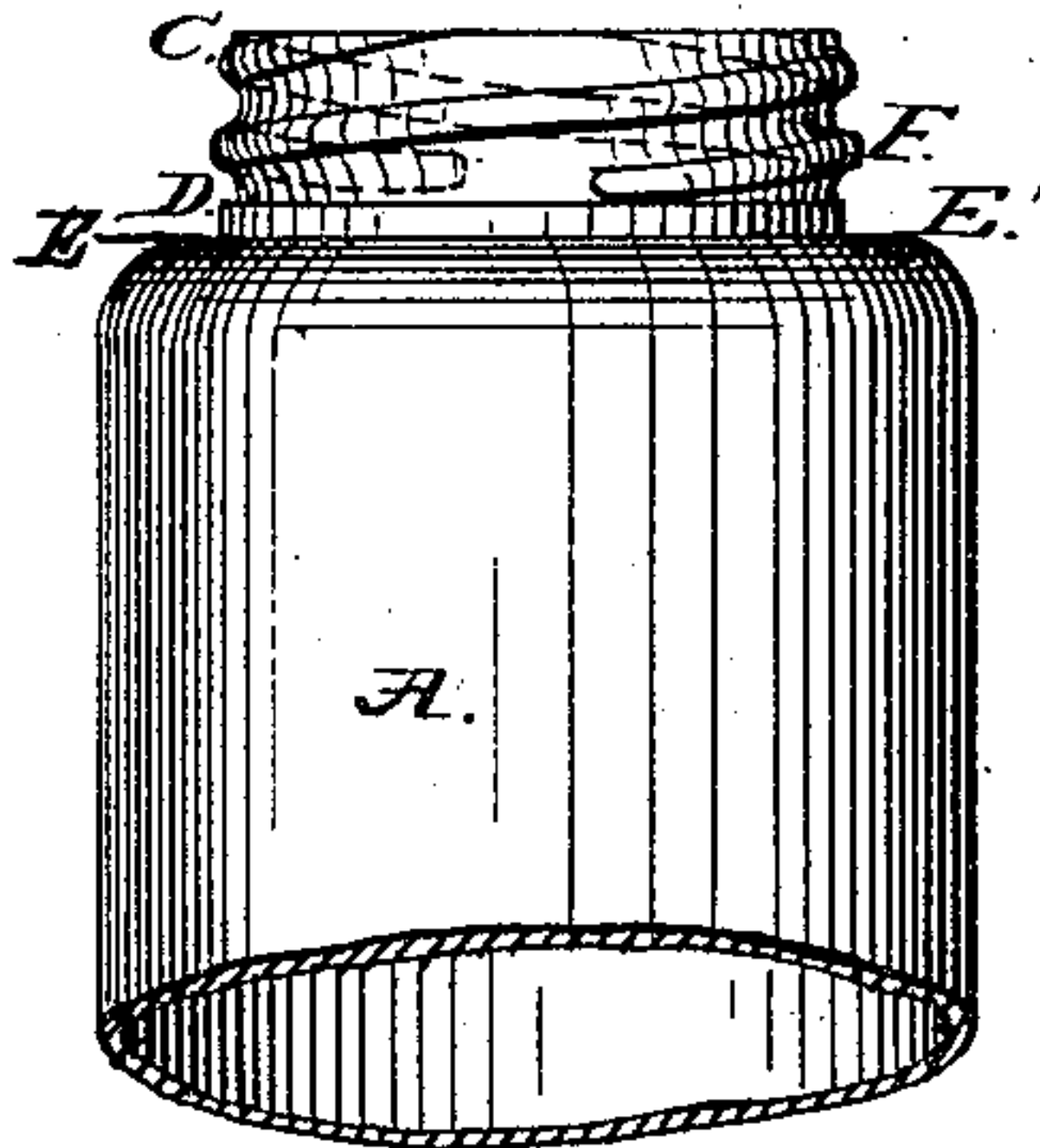


Fig. 3.

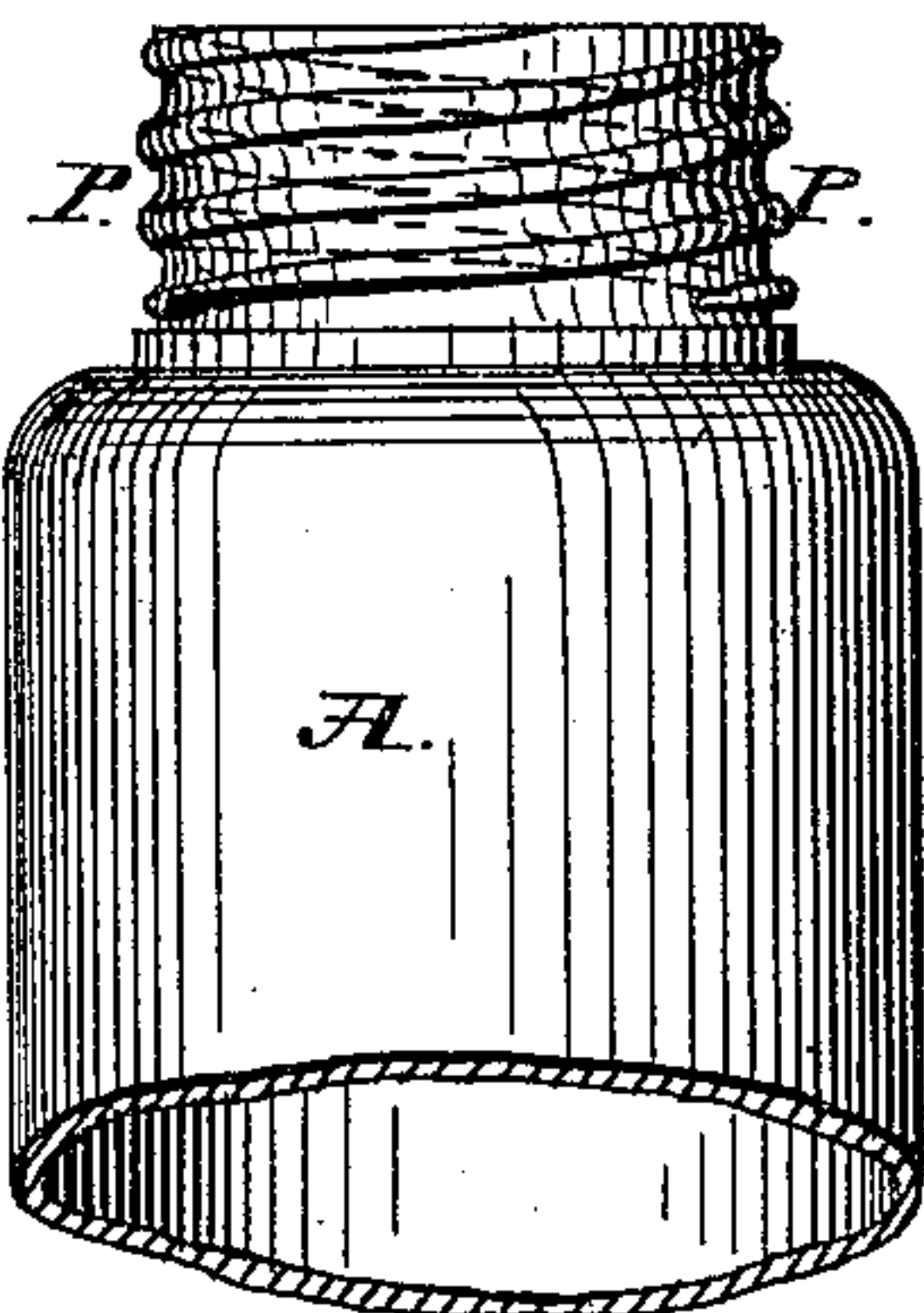
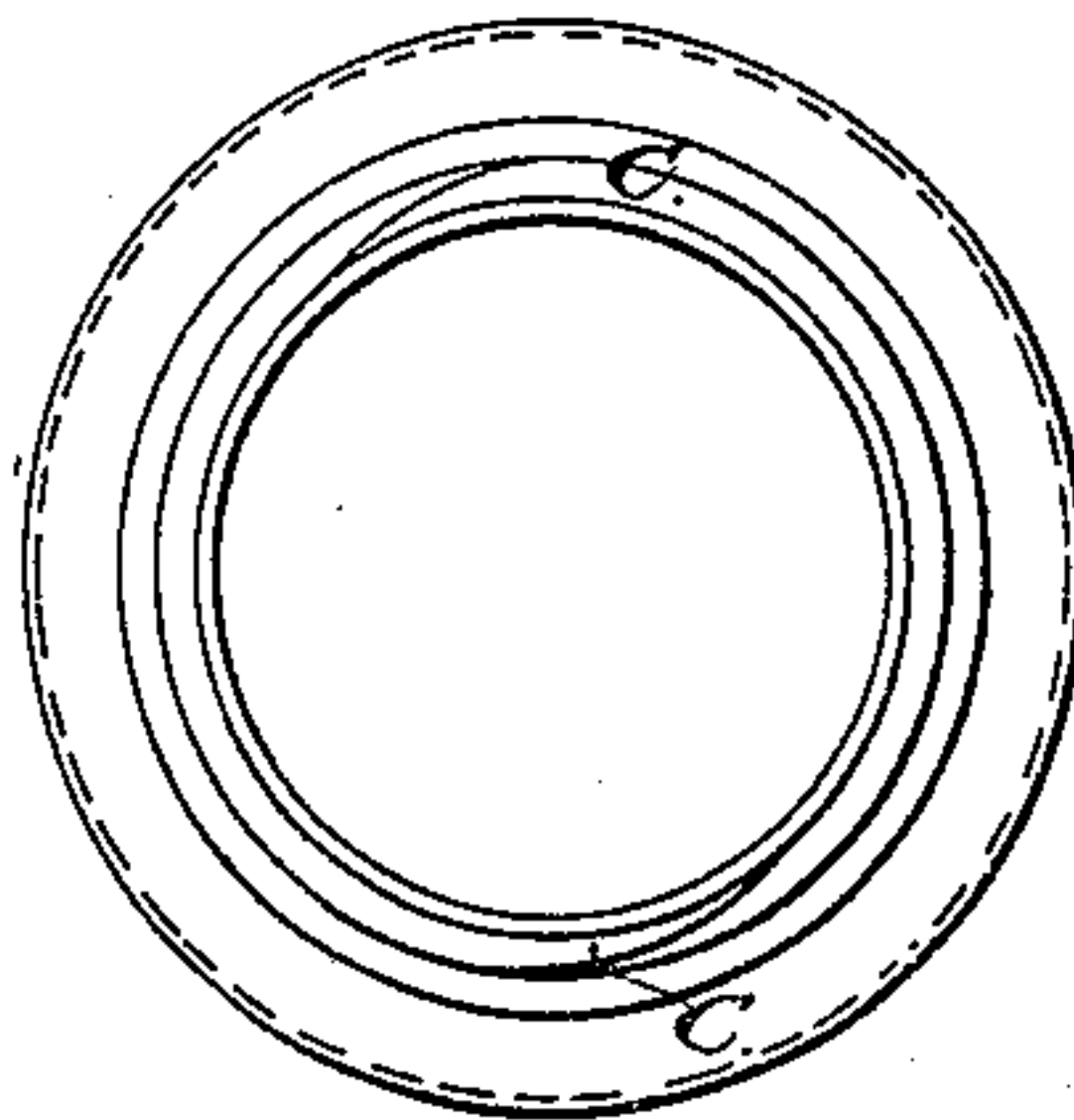


Fig. 4.



Witnesses:

Thos. A. Burt.
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Inventor:

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THOMAS G. OTTERSON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN FRUIT-JARS.

Specification forming part of Letters Patent No. 174,638, dated March 14, 1876; application filed November 4, 1875.

To all whom it may concern :

Be it known that I, THOMAS G. OTTERSON, of Philadelphia, Pennsylvania, have invented an Improvement in Fruit-Jars, of which the following is a specification :

Heretofore fruit-jars have been constructed with a single screw-thread applied to the neck of the jar, and to the metallic cap formed to closely fit the neck of the jar. Between the lower flange of the cap and the jar a rubber gasket is placed. It has been found, in practice, that fruit jars constructed as above set forth are defective in two particulars. First, the gasket is subjected to an uneven pressure, and when the cap is turned down snugly on its seat it wrinkles the gasket, and one side of the same is not held against the jar with sufficient pressure to insure a perfect air-tight joint. This defect results from the fact that in order to allow of the ready attachment of the cap to the jar slight play is necessary between the respective threads of the cap and jar, and as the cap is screwed home on the jar the threads in close proximity to the base of the neck will firmly wedge one side of the gasket between the cap and jar, while the resiliency of the metal of which the cap is formed serves to take up the slack between the threads of the cap and jar, and therefore prevent a tight joint on the opposite side of the neck of the jar.

Again, when a single screw-thread, consisting of two or more turns, is formed on the neck of the jar, the neck is obliged to be made of considerable length, and is liable to become broken in manufacture, and also the cap must be revolved about the neck as many times as there are turns of the single screw-thread.

Again, fruit-jars have been made with recesses cut on opposite sides of the neck, and corresponding threads formed on the inner surface of the metallic cap. The said recesses were formed at an obtuse angle to the surface of the neck, and extended around only a portion of the surface of the same, thereby leaving nearly one-half of the surface of the neck of the jar unprovided with holding or binding surfaces. It is evident that the greater the pitch of a thread, its power is correspondingly reduced, and it is of the greatest importance in fruit-jars that as little pitch be given the

threads as possible. Where recesses are formed in the neck of the jar, as above set forth, it is impossible to form them with the desirable pitch for insuring a reliable attachment of the cap to the jar, as the material between the recesses is of insufficient strength to sustain the pressure brought to bear on the same.

Again, to allow of the engagement of the threads on the cap with the recesses in the neck of the jar, the face of the neck must be cut away to receive the same, and when thus constructed two sharp cutting-edges are presented on the neck, against which the threads on the cap must be forced, whereby the cap is soon rendered inefficient and useless.

The object of my invention is to obviate the defects above set forth; and to that end it consists, first, in a fruit-jar having double overlapping threads formed on the neck of the same, in combination with a metallic cap provided with double overlapping grooves in its interior surface, the said grooves adapted to engage with and closely fit the threads on the neck of the jar; second, the combination of a rubber gasket with a fruit-jar and metallic cap, constructed as above set forth.

In the accompanying drawings, Figure 1 is a side elevation of my improved fruit-jar with its cap in position. Fig. 2 is a side elevation of the upper portion of the jar, with the cap removed to show the double overlapping threads on the neck of the jar. Fig. 3 is a side elevation of the upper portion of a fruit-jar, showing the neck of the jar provided with threads of increased length. Fig. 4 is a top view of the jar shown in Fig. 2.

A represents the jar, which is made of glass or other suitable material, the neck of which is provided with double overlapping screw-threads C C'. Between the threads C C' and the shoulder E of the jar there is formed a ring, D, around the outer surface of which the rubber gasket E' is placed. The cap B is constructed with double overlapping spiral grooves F, which engage with and closely fit the threads C C' on the neck of the jar.

As the threads C C' start on opposite sides of the neck of the jar, and extend to the base of the same on an equal pitch, the cap, when turned down on its seat, will have a firm and

equal bearing on every portion of the neck of the jar, and produce an equalized pressure on the entire surface of the rubber gasket, thereby insuring a perfectly tight joint; also, the cap is rapidly forced to its seat, as it requires to be turned only one-half the distance necessitated where a single-threaded jar and cap are used.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a fruit-jar the neck of which is provided with double overlapping screw-threads, of a metallic cap hav-

ing double overlapping spiral grooves formed on its inner surface, substantially as and for the purpose set forth.

2. The combination, with a fruit-jar having double overlapping screw-threads formed on its neck, and a metallic cap having corresponding double overlapping grooves on its inner surface, of a rubber gasket applied between the cap and the shoulder of the jar, substantially as and for the purpose set forth.

THOMAS G. OTTERSON.

Witnesses:

JNO. A. BELL,

THOS. A. BURTT.