2 Sheets--Sheet 1.

W. TWINING.

Improvement in Churns.

No. 124,176. Patented Feb. 27, 1872.

FIG. 1

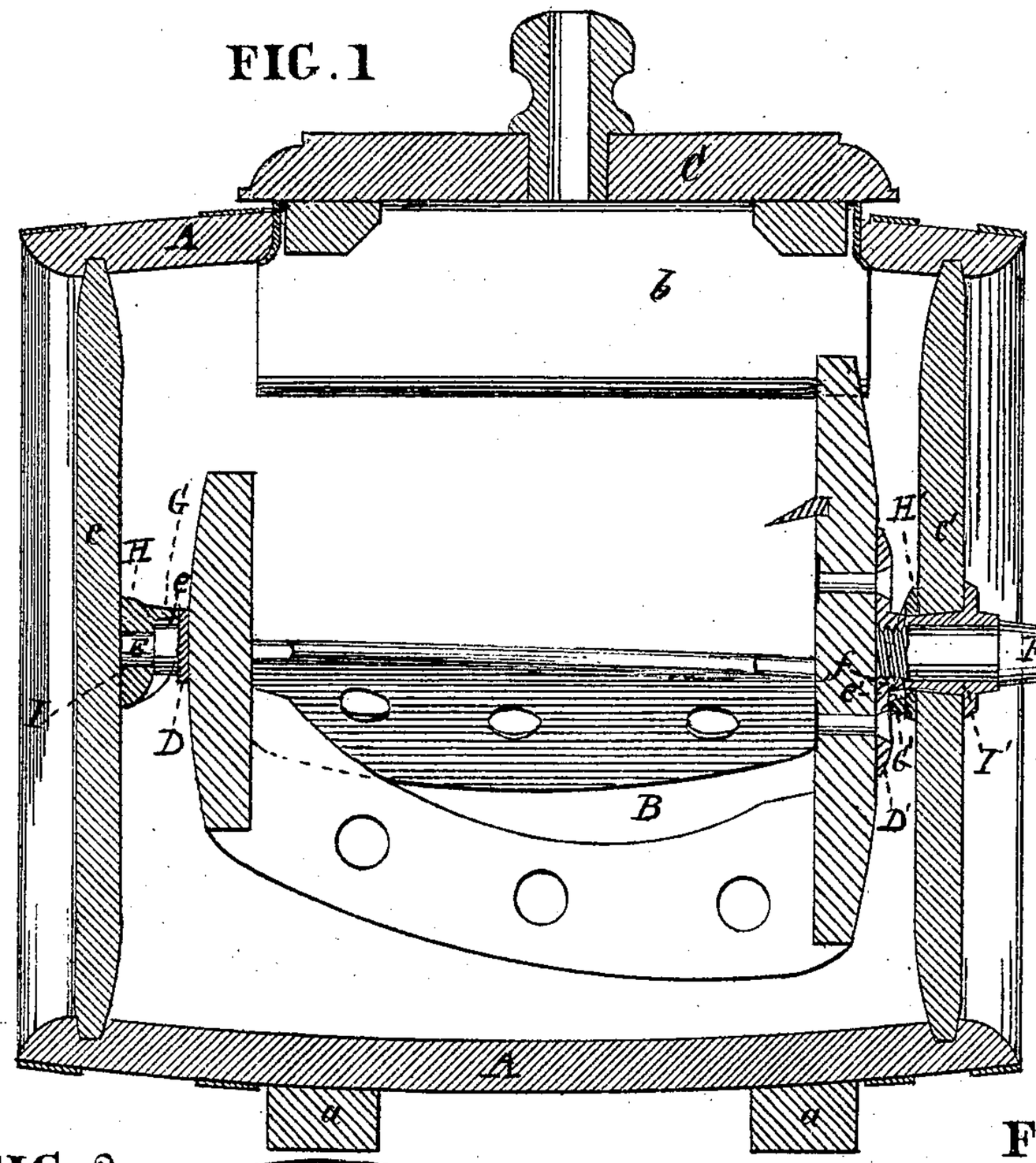


FIG. 2

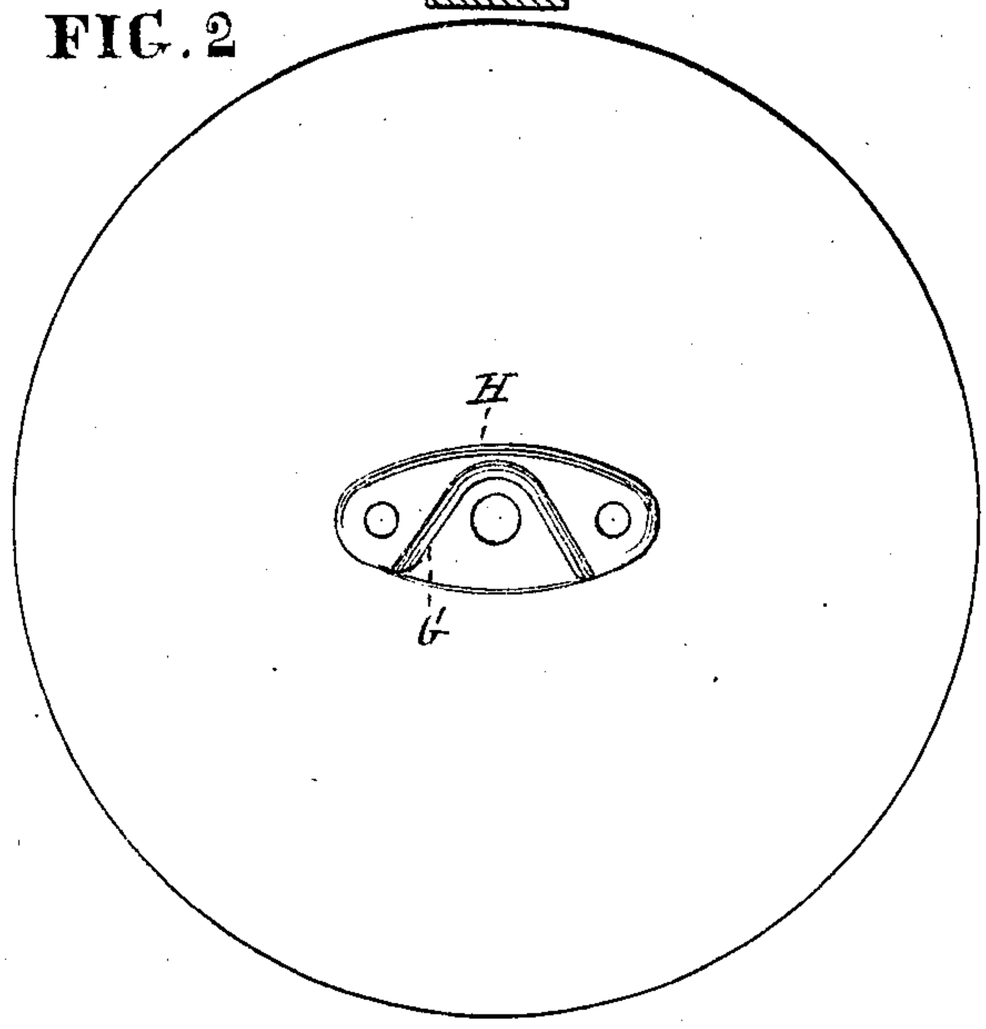


FIG. 3

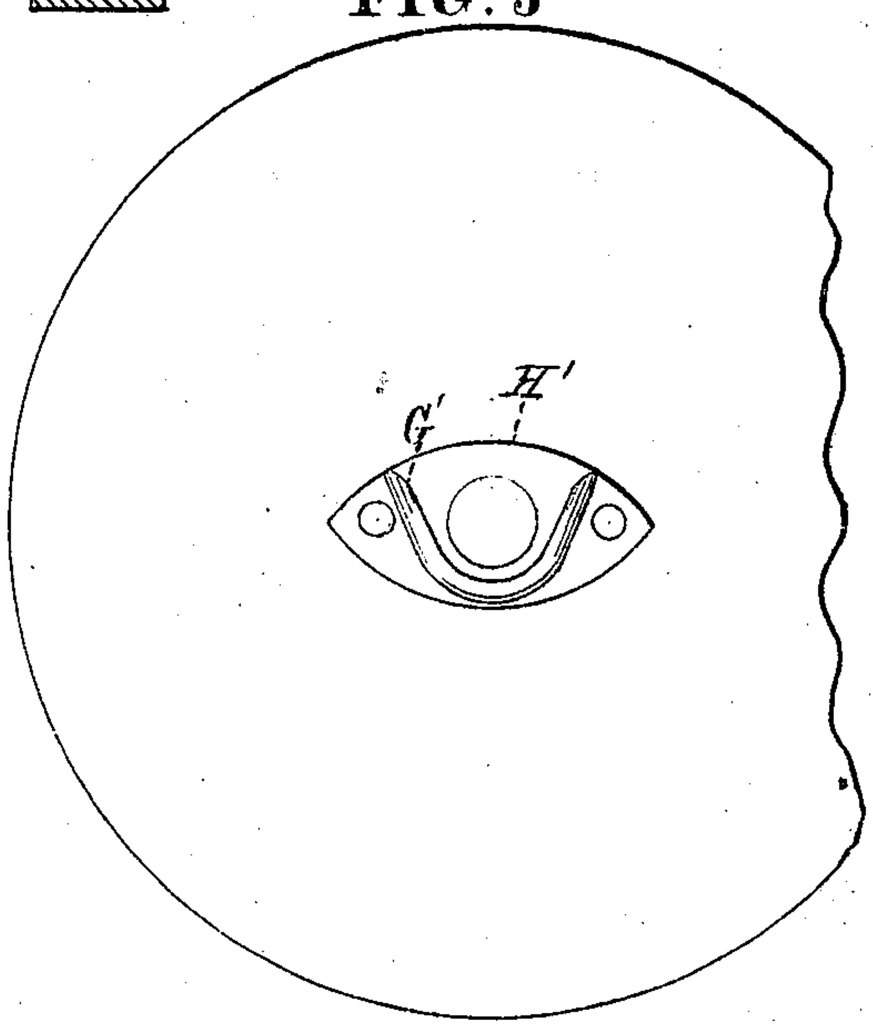


FIG. 4

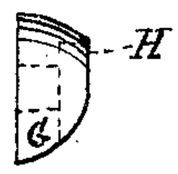
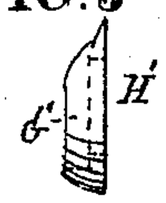


FIG. 5



WITNESSES

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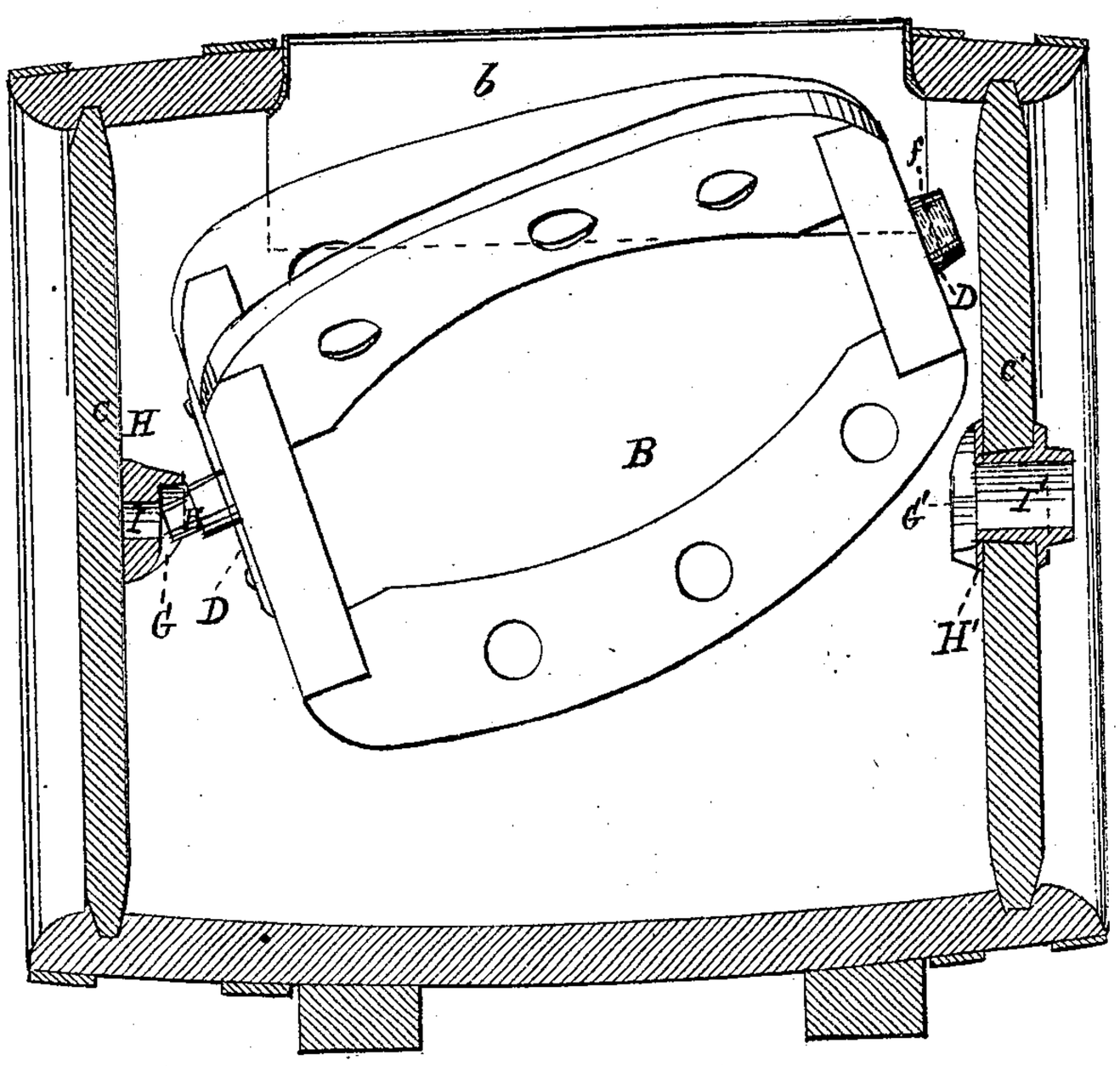
2 Sheets--Sheet 2.

W. TWINING.

Improvement in Churns.

No. 124,176. Patented Feb. 27, 1872.

FIG. 6



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UNITED STATES PATENT OFFICE.

WATSON TWINING, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO CLEMENT & DUNBAR, OF SAME PLACE.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 124,176, dated February 27, 1872.

Specification describing an Improvement in Connecting-Dashers with Barrel-Churns, invented by WATSON TWINING, of the city of Philadelphia and State of Pennsylvania.

The object of my invention is such a construction and arrangement of the dasher-irons as will provide for an easy and expeditious connection of the dasher with the churn. The invention consists in the combination and arrangement of concave ribs with the inner surface of the ends of the churn, placed as hereinafter described, for guiding the journals of the dasher to their bearings.

Figure 1 is a vertical section of a barrel-churn, with the improvement attached. Fig. 2 is an inside view of the churn-head *c*, provided with the casting H. Fig. 3 is a like view of the head *c'*, having a casting, H'. Figs. 4 and 5 are edge views of the castings H H'. Fig. 6, Plate 2, is a vertical section of the barrel A, with the dasher B inserted, and in the position to bring it into connection with the barrel.

Like letters in all the figures indicate the same parts.

A is the barrel of the churn, provided with feet *a a*. It has an opening, *b*, in its upper side for the introduction of the cream and the insertion of the dasher B, which opening is covered by means of the lid C. The dasher B is provided at the back end with the casting D, from which projects the fixed journal E, and at the other end with a casting, D', with which the inner end of the crank-shaft F has a screw connection, as seen in Fig. 1. In order to facilitate the connection of the dasher B with the barrel A, a concave rib, G, is projected from the journal-bearing casting H connected with the back head *c* of the churn in an inverted position, seen clearly in Fig. 2, so that, when the dasher is introduced into the barrel in an angular position, as seen at Fig. 6, with the journal beneath its bearing I, and the end of the dasher is drawn upward, the journal is guided by said rib and brought into a central position for its connection with the bearing by pushing the dasher backward. The casting H', at the front end of the barrel A, is provided with a concave rib, G', below the journal bearing I', for the guiding of the boss *f* to a central position with the same for the connection of the inner end of the crank-shaft F. There is a space, *d*, between the boss *e* and the rib G, and a like space, *d'*, between the boss *f* and the rib G' to cause the journals to run freely in their bearings I I' without additional friction. The concave ribs G G' may be made separate from the castings H H', if desired, so as to accommodate the improvement to churns already constructed.

I claim as my invention—

1. The combination of the concave rib G with the back end *c* of the churn, the said rib being placed above the journal, with its concave surface downward for guiding the journal E to its bearing, when the back end of the dasher is elevated, as above described.

2. The combination and arrangement of the concave rib G' with the rib G and head *c'*, substantially in the manner and for the purpose above described.

WATSON TWINING.

Witnesses:

THOMAS S. BEWLEY,

STEPHEN I. USTICK.