

DAVID R. QUICK.
Improvement in Screws.

No. 115,770.

Patented June 6, 1871.

Fig. 1.

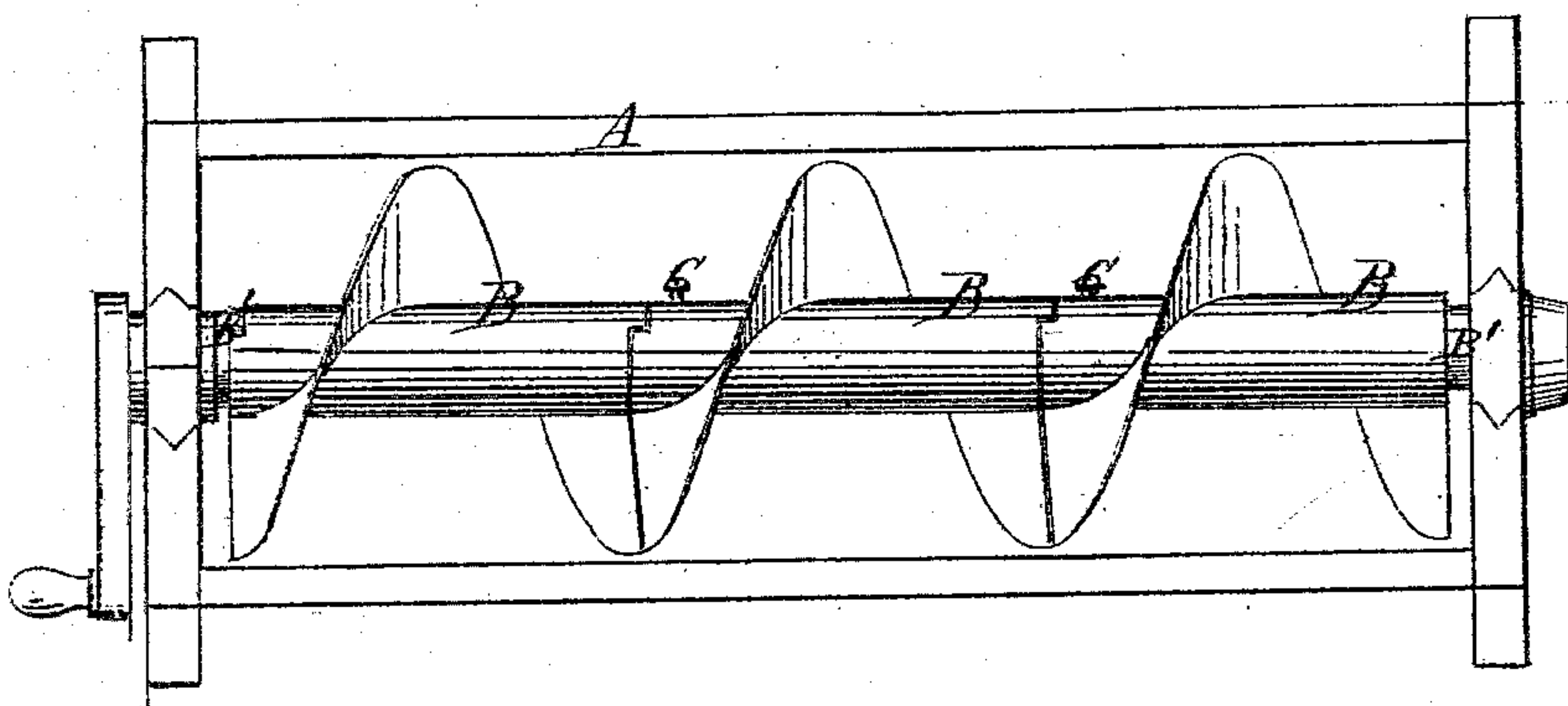


Fig. 2.

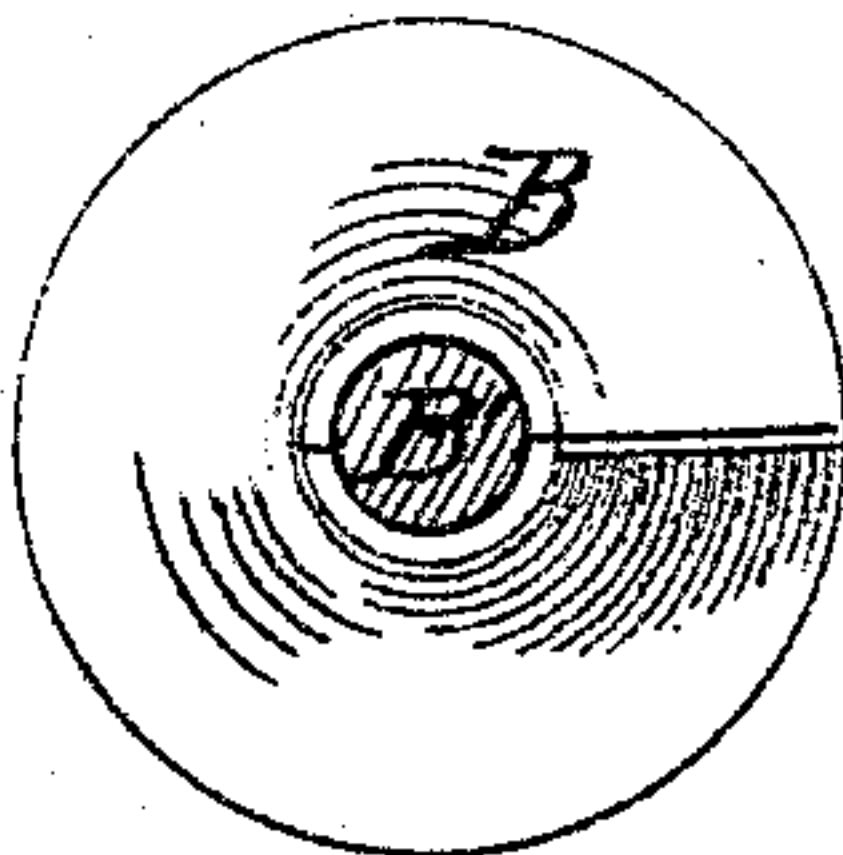
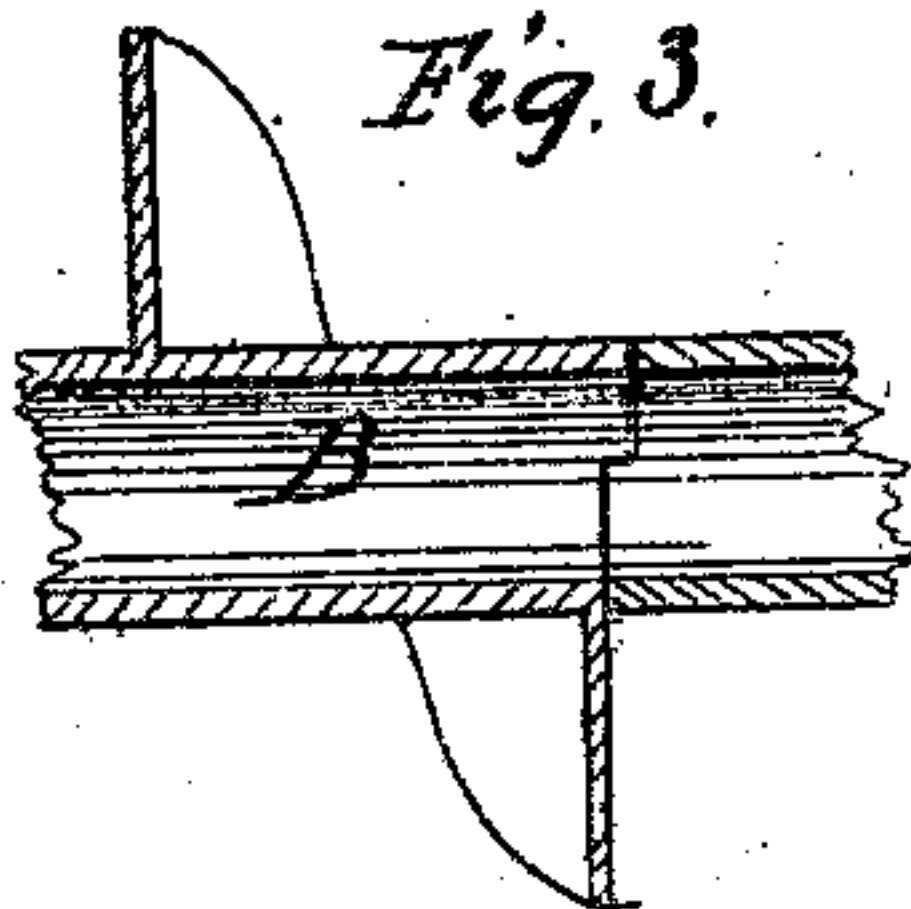


Fig. 3.



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DAVID RUFUS QUICK, OF NEW YORK, N. Y.

IMPROVEMENT IN SCREWS.

Specification forming part of Letters Patent No. 115,770, dated June 6, 1871.

To all whom it may concern:

Be it known that I, DAVID RUFUS QUICK, of New York, in the county of New York and State of New York, have invented a new and valuable Improvement in the Construction of Screws; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a plan view of my invention. Fig. 2 is a transverse section of the same. Fig. 3 is a longitudinal section.

This invention has relation to the improved construction of screws; and consists in casting or forming them in distinct sections, with hollow hubs, and afterward coupling them together on a common shaft in such a manner as to form an unbroken line the whole extent of the thread or spiral, as well as of the hub. This invention is particularly applicable to large screws, such, for instance, as those used in flour-mills as "conveyers," but is also of utility in constructing screws for other purposes.

In the accompanying drawing, illustrating the nature of this invention, A represents a flour-trough, in which revolves a screw-conveyor constructed according to my improved method—that is, in sections B, coupled together on a single shaft, B', which passes through their hollow hubs. In each section the thread, embracing a full or fractional part of a pitch, and the hub thereof, are cast to-

gether. The thread terminates with a radial edge, which may be slightly beveled, while the end of the hub has a clutch formation, so that when the sections are coupled together the threads and hubs form each a continuous, unbroken line. C shows screws for securing the sections B to the shaft B; but any other method of fixing the sections rigidly in place may be adopted as answering the same purpose.

The clutch-coupling of the sections obviates the necessity of connecting each to the shaft separately. All that is required is to secure the end sections.

The advantages of this construction of screws are obvious. The casting of the sections is a work more readily performed than that of casting or otherwise forming the entire screw in one piece. It is economical in large screws, where the threads are liable to be broken or injured, since a broken or damaged section can be readily replaced by a new one.

I claim as my invention—

A screw constructed in sections, having hollow hubs bearing on a common shaft and united by clutch-coupling, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

DAVID RUFUS QUICK.

Witnesses:

ABNER VAN HORN,
ELIAS B. QUICK.