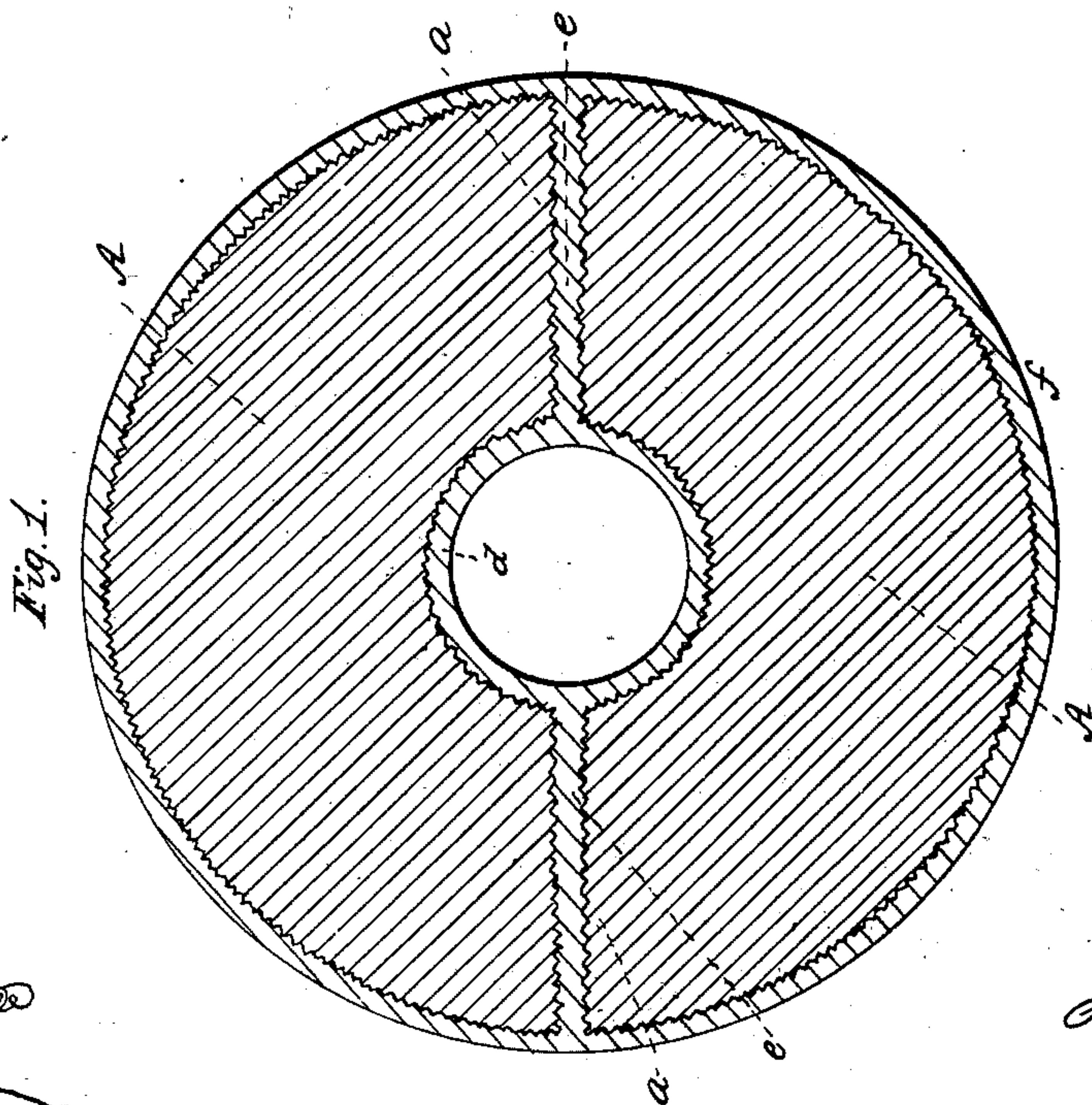
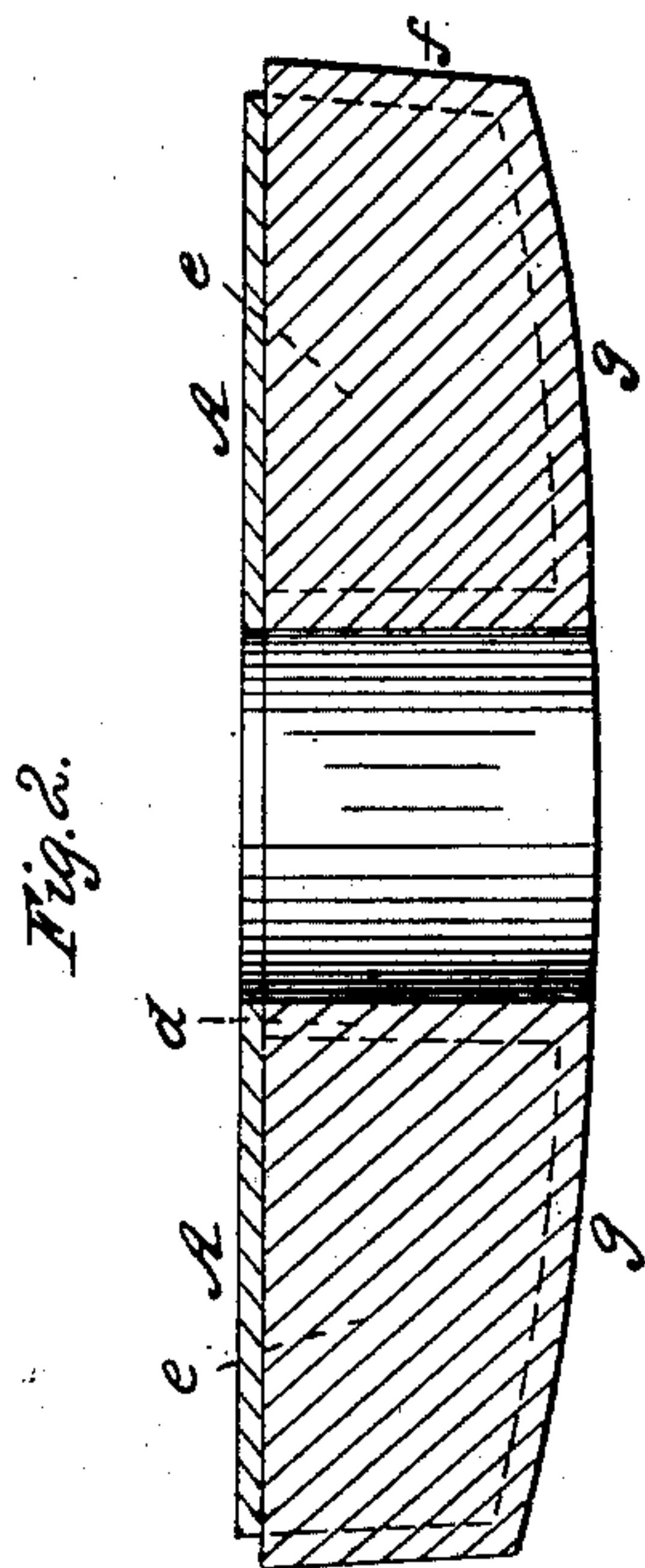


S. HOYT.

Constructing Millstones.

No. 28,083.

Patented May 1, 1860.



Witnesses:
Gordon B. Arden
R. M. Jewett

Inventor:
S. Hoyt

UNITED STATES PATENT OFFICE.

SAMUEL HOYT, OF WILMINGTON, DELAWARE.

CEMENTING MILLSTONES.

Specification of Letters Patent No. 28,083, dated May 1, 1860.

To all whom it may concern:

Be it known that I, SAMUEL HOYT, of Wilmington, in the county of Newcastle and State of Delaware, have invented a new and
5 useful Improvement in Constructing Millstones; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming a part of this
10 specification, in which—

Figure 1 is a horizontal section of a millstone constructed after my invention. Fig. 2 is a vertical central section.

Similar letters of reference, in each of the
15 several figures indicate corresponding parts.

In order to construct mill stones of a large size, it is necessary to take a series of the small French burs and give them a quadrantal, segmental or other similar shape,
20 and then unite them together by plaster of paris or other suitable cement and bind them together with bands or hoops.

My invention relates to a new method of joining and holding the quadrantal, segmental or other similar shaped burs together,
25 and at the same time giving additional weight to the same.

My said new method consists in running lead, solder or other suitable liquid metal
30 in the joints between the sections, and around the eye and circumference of the stone; substantially in the manner hereinafter described. By thus using molten lead, it will be evident that the roughened surfaces with
35 which it comes in contact will enable it to take a firm hold upon the bur sections and that owing to the contraction of the lead as it cools, the circumference, eye, and meeting edges will all be bound or embraced so
40 firmly that it will be impossible for the sections to separate under any circumstances.

To enable others, skilled in the art, to make and use my invention, I will proceed to describe its construction and operation.

45 A, A, represent two French burs shaped so as to form, when jointed together, a circular mill stone with a central eye. To unite and bind these burs together, place their

flat sides *a, a*, nearly together and then set them in a mold which has a central core of 50 smaller diameter than the eye, and constructed with a raised or annular ring flange of greater circumference than the burs.

In order to have the surface of the stone at the joints between the burs, and at the 55 circumference and eye, stand below the lead, the mold is constructed with a raised shoulder of less circumference than the flange, with a raised transverse rib of the same size as the joint where the burs unite and with a 60 raised shoulder of greater diameter than the central or eye core.

All being arranged, I pour molten lead, solder or other metal which will adhere to the surfaces of the burs, around the central 65 core as shown at *d*; in the joints as shown at *e*, and between the flange of the mold and circumference of the burs as shown at *f*, and over the top surface of the sections, as shown at *g*. The burs thus joined together will 70 form a very solid, durable and heavy mill stone, and by filling up the space left at the base of the joints and eye with plaster of paris or other cement, a perfectly smooth surface will be obtained and no danger of 75 the flour being colored by the metal, in grinding, will be incurred.

I do not limit myself to any particular manner of applying the molten metal as this may be done in various ways; but 80

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

The use of lead, solder, or other similar molten metal for the purpose of uniting the sections of a mill stone and binding the same 85 together at the eye and circumference, and at the same time giving increased weight to the stone, substantially in the manner herein described.

The above specification of my improve- 90 ment in cementing mill stones signed by me this 14th day of December 1859.

SAML. HOYT.

Witnesses:

GOODWIN Y. AT LEE,
R. W. FENWICK.