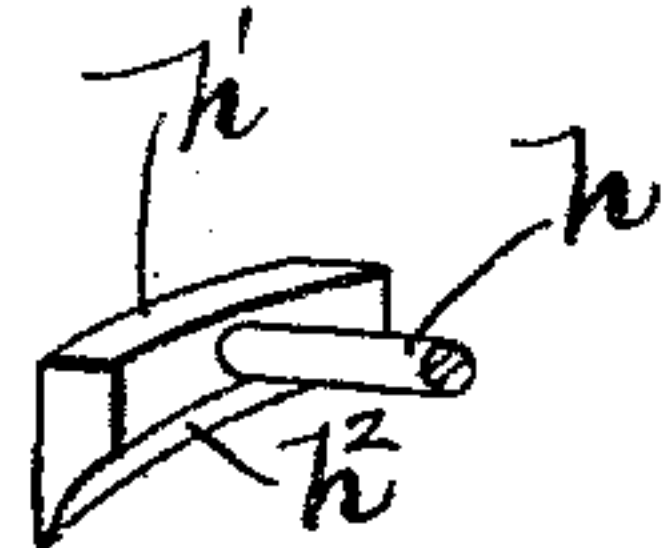
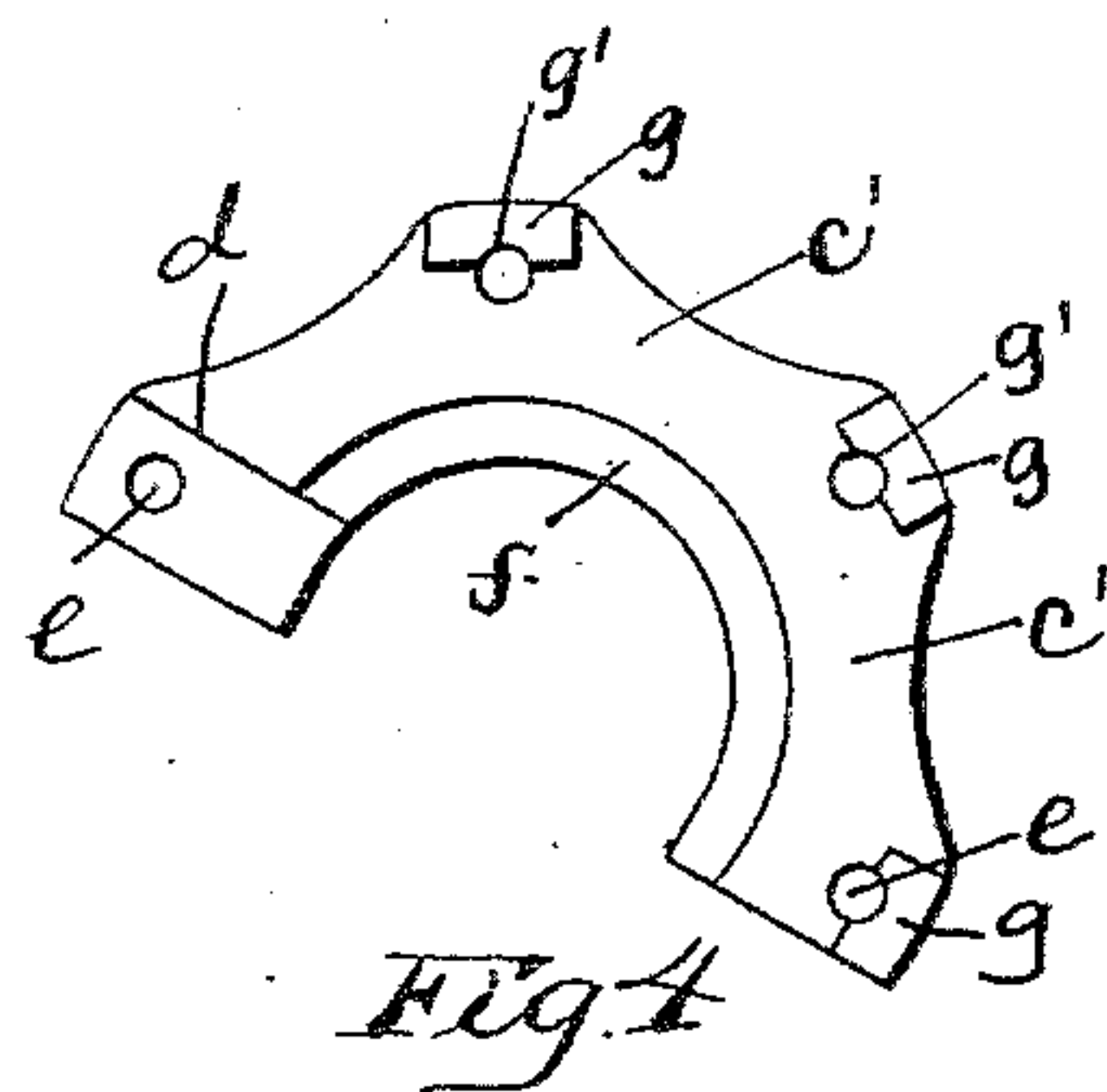
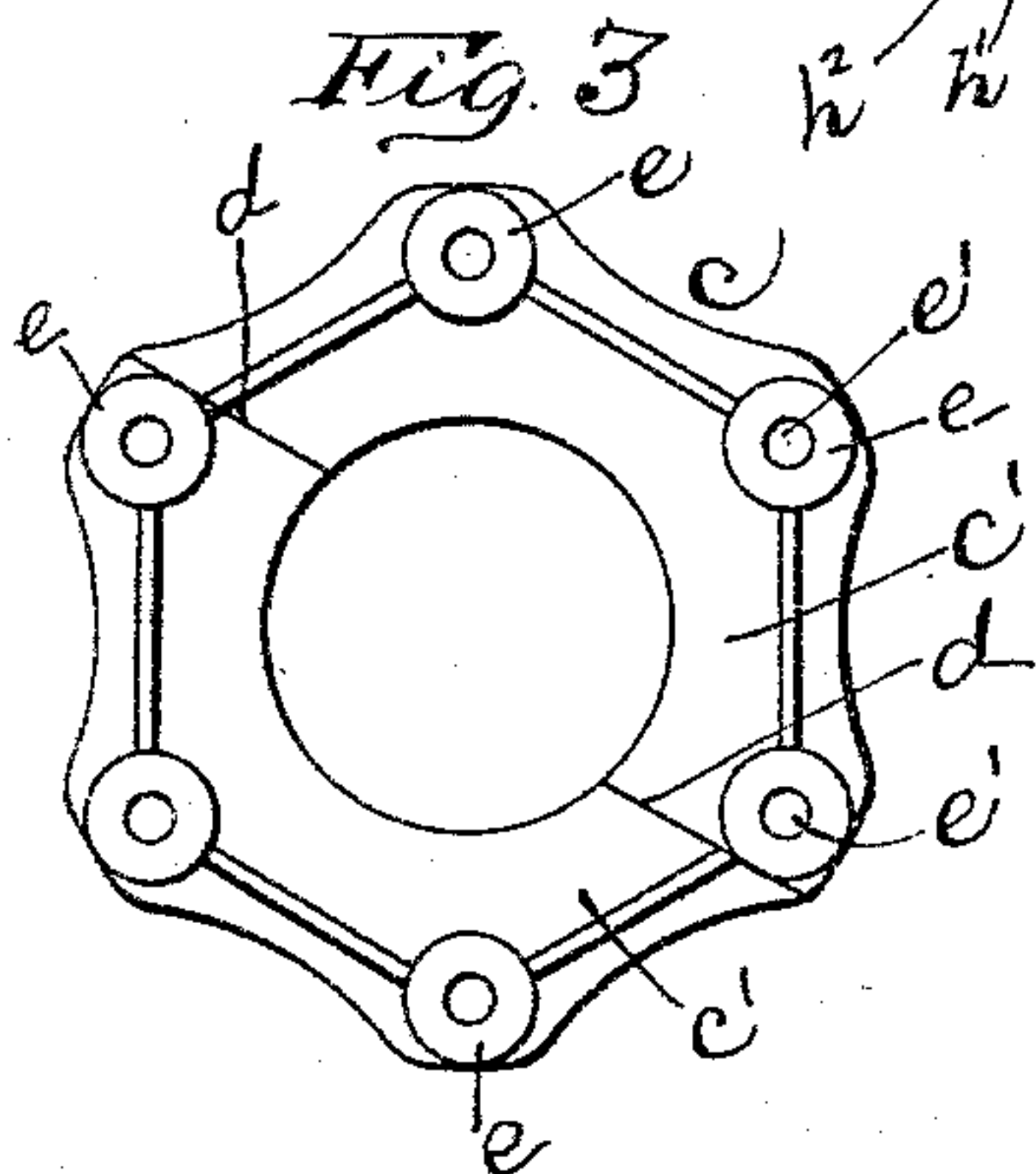
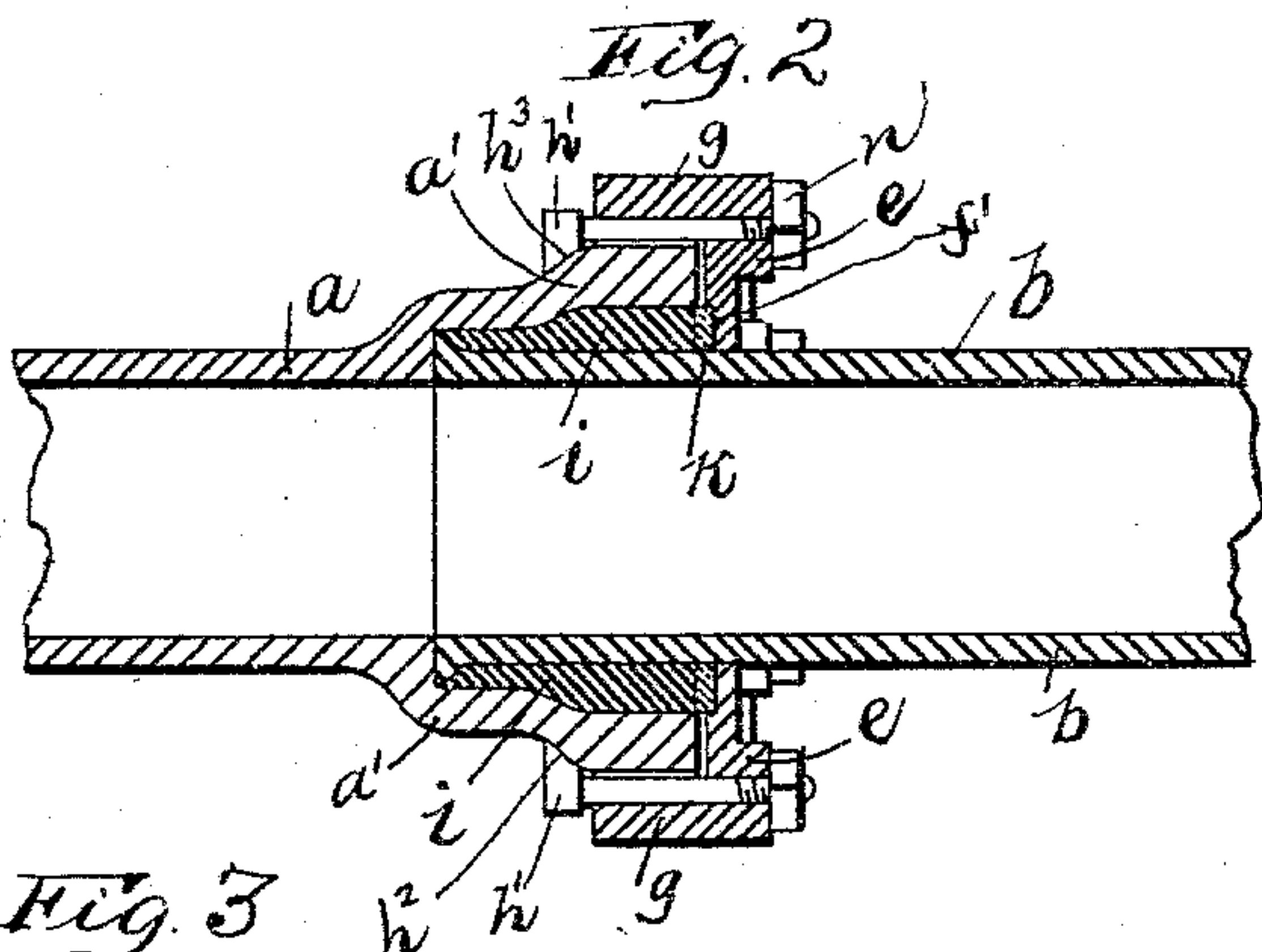
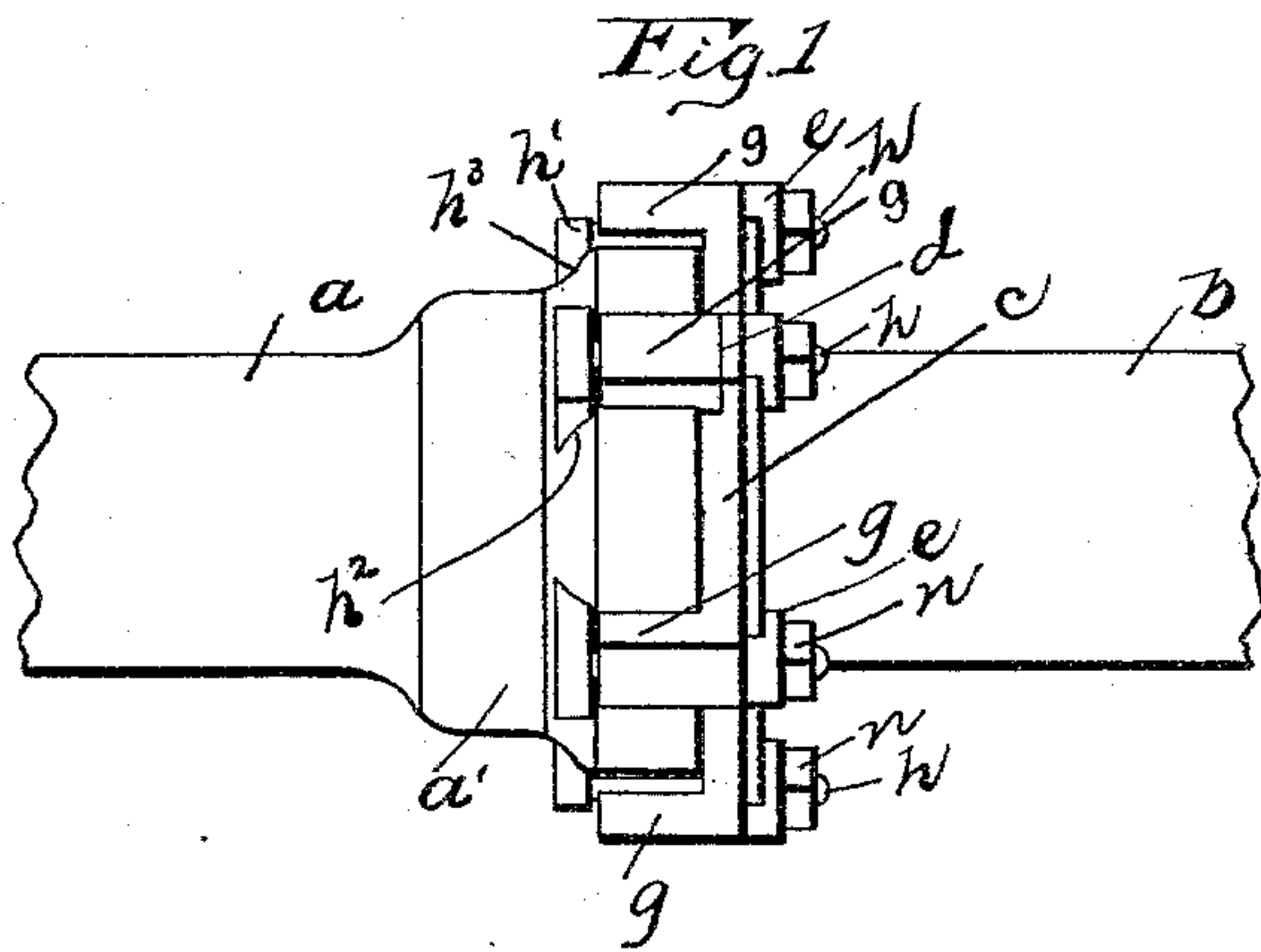


(No Model.)

J. BRICE.
PIPE JOINT CLAMP.

No. 546,298.

Patented Sept. 17, 1895.



WITNESSES:

H. B. Bradshaw
A. L. Phelps

INVENTOR

James Brice

BY

Staley and Shepherd
ATTORNEYS

UNITED STATES PATENT OFFICE.

JAMES BRICE, OF COLUMBUS, OHIO.

PIPE-JOINT CLAMP.

SPECIFICATION forming part of Letters Patent No. 546,298, dated September 17, 1895.

Application filed May 23, 1894. Serial No. 512,246. (No model.)

To all whom it may concern:

Be it known that I, JAMES BRICE, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Pipe-Joint Clamps, of which the following is a specification.

My invention relates to the improvement of pipe-joint clamps; and the objects of my invention are to provide a clamp of this class of superior construction and arrangement which will greatly facilitate the formation of a gas-tight joint and by means of which leaks in the joints of gas-pipes may be readily and effectively cured, and to produce other improvements in details of construction which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a gas-pipe joint having my improved clamp thereon. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a face view of the clamping-ring. Fig. 4 is a similar view of the opposite side of one of said ring-sections; and Fig. 5 is a detail view, in perspective, of a portion of one of the clamp-bolts.

Similar letters refer to similar parts throughout the several views.

a and *b* respectively represent gas-pipes of that class which are employed in gas mains or branches thereof. That end of the pipe *a* which is shown is provided in the usual manner with the bell-shaped mouth or enlargement *a'*, while the adjoining end of the pipe *b* shown represents the spigot end, which is adapted to be inserted loosely within the bell-mouth of the pipe *a* in the usual manner.

c represents my improved clamp-ring, which, as shown in the drawings, is formed of two semicircular sections *c'*, the ends of which are made to overlap each other, as shown, to complete the circular clamp, said overlapping ends being cut away so as to form, as indicated at *d*, flush-joints. The ring thus formed is provided at regular intervals on its outer face and adjacent to its periphery with raised portions or bosses *e*, through which portions said ring-sections are provided with bolt-holes *e'*. As indicated in Fig. 4 at *f*, the inner surface of the ring adjoining its inner edge or

immediately about its central opening is provided with a circular depression or seat portion. On the outer side of each of the bolt-holes *e'* and on what I term the "inner face" of the ring is made to project at right angles with the plane of said ring a lug *g*, said lugs being of such thickness as to result in their under sides being grooved, as indicated at *g'* to form continuations of the outer portions of the bolt-holes *e'*. Through each of the bolt-holes *e'* is adapted to pass a bolt *h*, the latter having the usual screw-threaded outer end, and having formed on or secured to its remaining end an elongated head *h'*, said head being curved to conform substantially to the curve of the bell periphery of the pipe *a*. Each of these heads *h'* also, is provided on their inner faces adjoining its lower sides with a curved bevel, (indicated at *h²*), which is adapted to fit over and conform to the usual curved shoulder or swell *h³* of the pipe-bell in the manner indicated in Fig. 2 of the drawings.

In Fig. 2 of the drawings I have shown my invention in connection with the ordinary means for producing a gas-tight joint, which consists, as shown, in the employment of a lead filling *i* within the mouth of the bell *a'* and about the spigot end of the pipe. In utilizing my invention I employ a gasket *k*, preferably of rubber or similar material, which surrounds the pipe *b* and is adapted to bear, as shown, against the outer end of the lead filling *i*. The clamping-ring *c* is then clamped about said pipe *b* by bringing together, in the manner described, the ring-sections *c'* and allowing the gasket *k* to bear in the seat or depressed portion *f* of the ring *c*. This having been accomplished the bolt-stems *h* are inserted in the manner shown through the bolt-holes *e'* of the clamping-ring in such way as to cause the beveled faces *h²* of said bolt-heads to bear, as shown, against one of the rounded shoulders of the bell *a'*. A nut *n* is then screwed upon the forward projecting end of each of the bolts, and the clamping-ring is thus drawn tightly inward against the gasket. From this operation it will not only be seen that the clamping-ring will be held firmly in the position shown and described, but that the exit of gas which ordinarily occurs through any imperfection of the lead

filling will be entirely cut off by the packing-ring *k*, which serves in itself to form a gas-tight closure of the space between the spigot end of the pipe and bell.

5 By the construction which I have described and shown it will be seen that the necessity of using double clamp-rings is entirely obviated, that the parts of my device are few and simple in construction, and that the same may
10 be manufactured and adopted at a reasonable cost.

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

15 In a pipe joint clamp the combination with a sectional clamping ring having bolt holes

formed as described at intervals therein, lugs *g* projecting at right angles with the plane of said ring, a circular seat or depression *f* in the inner face of said clamp and a pliable 20 band or gasket adapted to fit against said depression or seat, of clamping bolts having elongated curved heads as described, the stems of which are adapted to pass through said ring bolt holes and under the lugs *g* 25 thereby being retained in a clamping position, substantially as and for the purpose specified.

JAMES BRICE.

In presence of—

H. B. BRADSHAW,
FRANKLIN RUBRECHT.