

No. 837,297.

PATENTED DEC. 4, 1906.

J. M. GERMANSON.
CHAIR HUB PATTERN.
APPLICATION FILED JAN. 26, 1906.

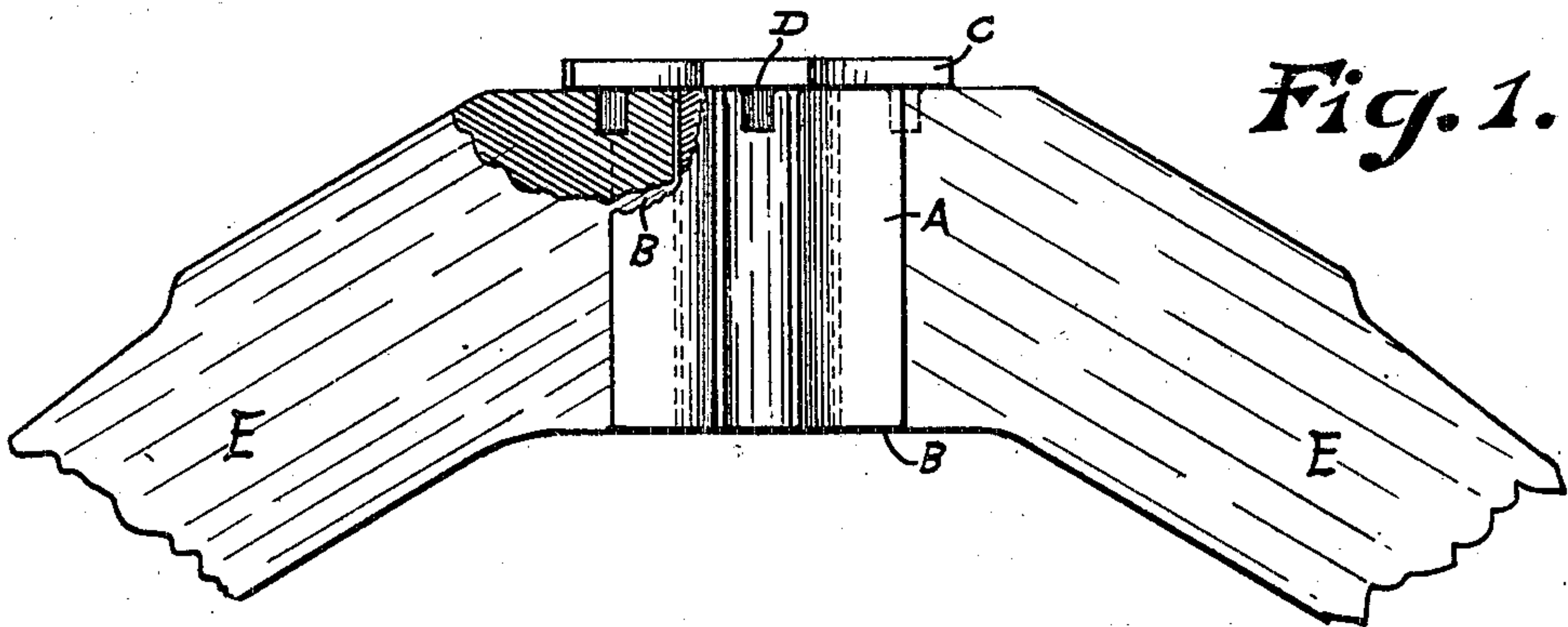


Fig. 1.

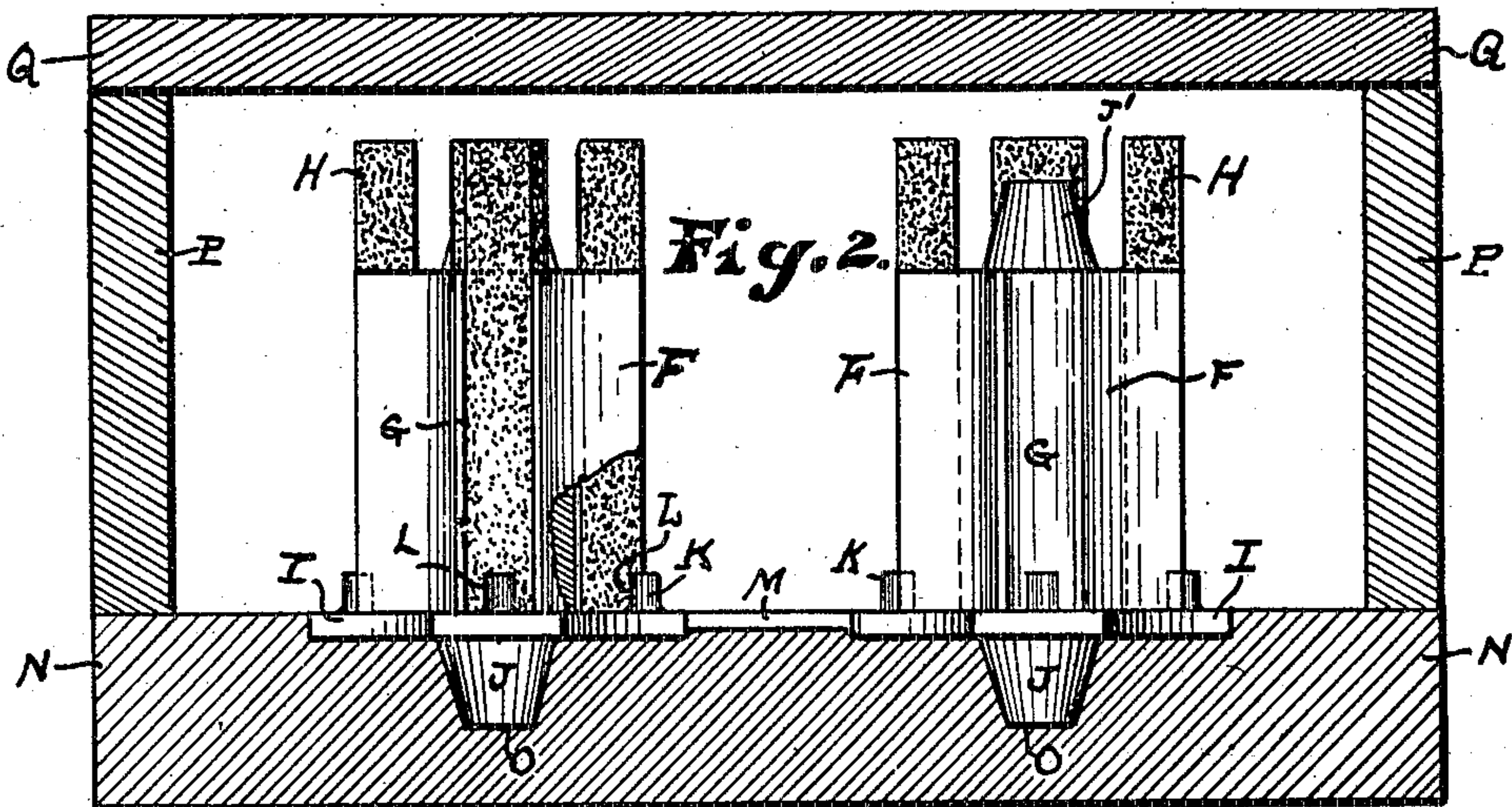


Fig. 2.

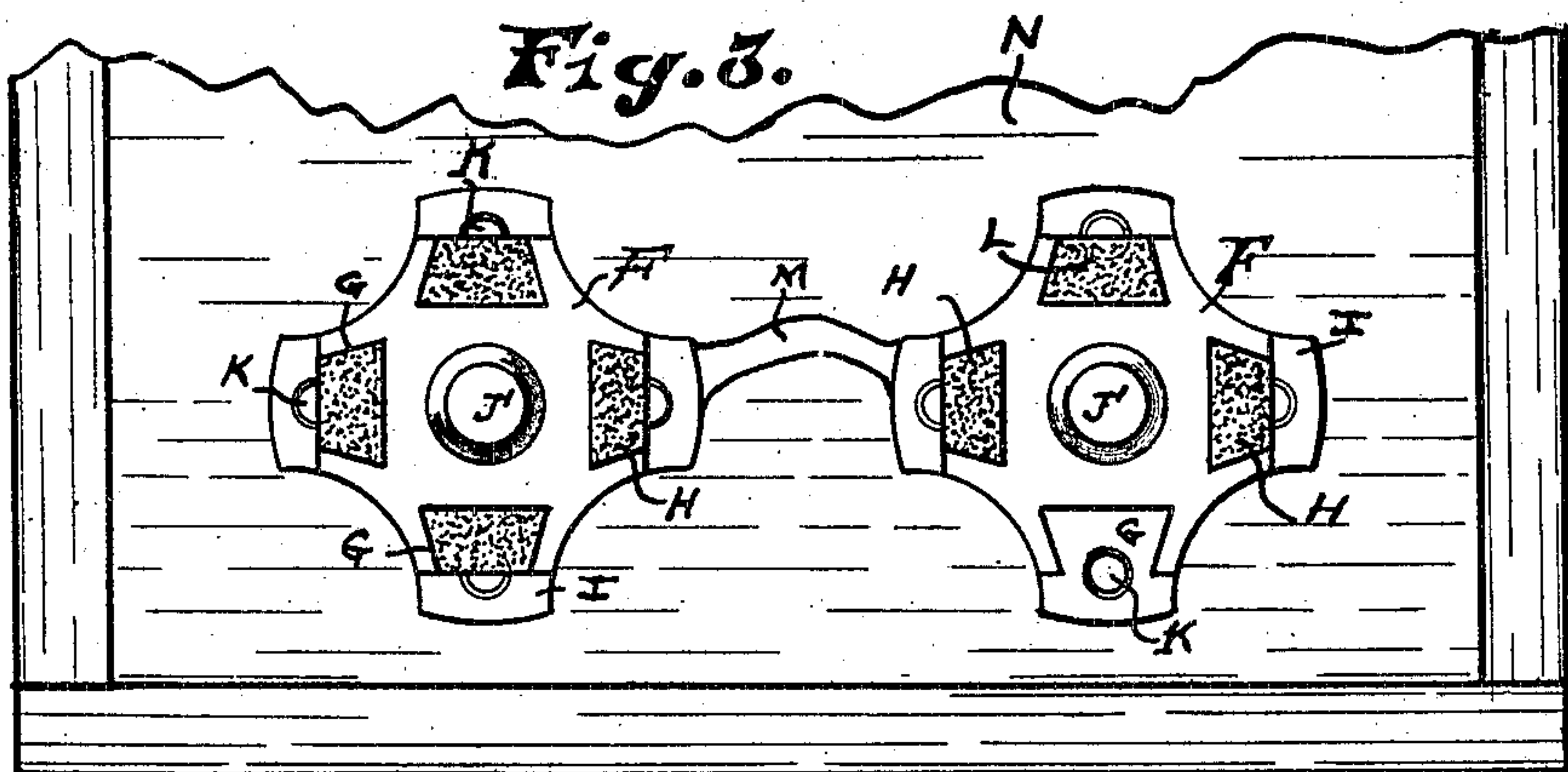


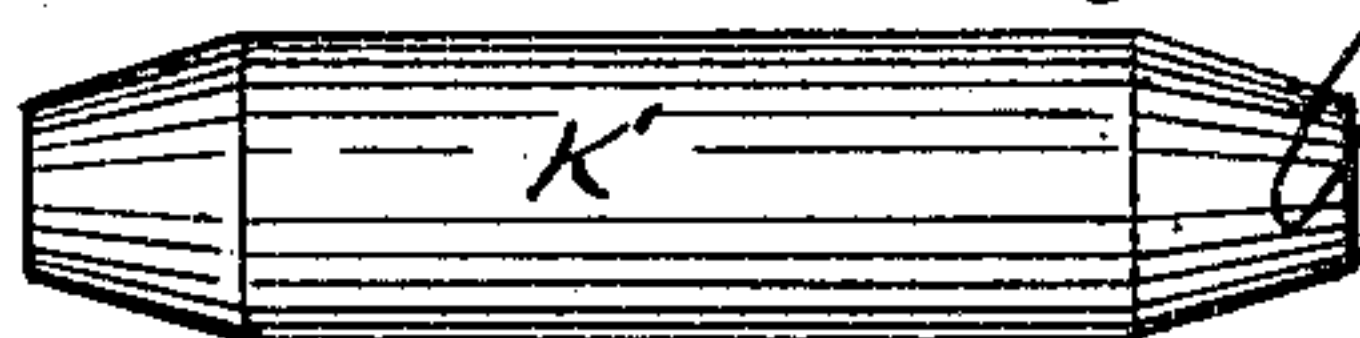
Fig. 3.

WITNESSES:

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CHAIR-HUB PATTERN.

No. 837,297.

Specification of Letters Patent.

Patented Dec. 4, 1906.

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To all whom it may concern:

Be it known that I, JULIUS M. GERMANSON, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Chair-Hub Patterns, of which the following is a specification.

My invention relates to improvements in patterns employed in the process of manufacturing chair-hubs.

The object of my invention is, among other things, first, to provide a pattern by which the leg-retaining channels of a hub may be more accurately made and the walls of the channels given a smoother and more uniform finish; second, to provide means whereby the leg-retaining studs upon the lower side of the cap-plate of the hub are formed in the exact proper relative position to the walls of the leg-channels; third, to provide means whereby the dry-sand cores employed in forming the leg-channels of the hub serve as guide-bearings which facilitate the removal of the pattern from the mold and also whereby I am able to use several patterns connected together in a single gate, and thereby make four or more molds at the same time, while by the old process in which green-sand cores are used one mold only can be successfully made at one time, and, fourth, to provide a pattern in which the body portion and the cap-plate are formed integrally, whereby both of said parts in all of the several patterns connected together in a single gate may be simultaneously drawn from the sand, whereby time and labor are saved and the output of a molder is largely increased.

My invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a side view, part broken away, of a chair-hub made by my improved patterns and molds. Fig. 2 represents a side view of two sets of my improved patterns connected together in a single gate and supported upon a match-board within a flask, and Fig. 3 represents a top view of the parts shown in Fig. 2. Fig. 4 is a detail representing a side view of one of the dry-sand cores.

Like parts are identified by the same reference-letters throughout the several views.

My hub comprises the body portion A, provided with leg-retaining channels B, cap-plate C, and leg-retaining studs D, which studs are adapted to engage in recesses provided therefor in the supporting-legs E, as

shown in Fig. 1. The pattern employed in the manufacturing of the hub comprises the body portion F, provided with a plurality of channels G for the reception of the sand cores H, base-plate I, core-prints J and J', and a plurality of studs K. The lower end of the dry-sand cores H are provided when made with semicircular recesses L for the reception of the said studs K, which recesses are adapted to fit around and cover the inner sides of said studs. Two or more patterns F are connected together by the gate M. N represents the match-board upon which the patterns are supported. The match-boards N are provided with recesses O for the reception of the lower core-prints J. P represents the so-called "drag" or bottom part of the flask. Q represents the base-board.

In using my improved patterns the first step in the process is to place the several gated patterns upon the match-board N with the core-prints J in the apertures O and the protruding ends of the dry-sand cores H up when the drag-flask P is placed around the patterns upon the match-board. This being done, green sand is rammed around the patterns and dry-sand cores up to the top of the flask P, when the same is struck off level with the top of the flask. The board Q is then put in place upon the upper edge of the flask, and the molds with the patterns therein are inverted, and the match-board N is removed when the ordinary cope or top part of the flask is put on and rammed full of sand. When the cope has been filled with sand, it is struck off on a level with its upper edge, when the cope is removed, leaving the print of the cap-plate I and the core print J in the cope. The gated patterns are then drawn from the mold, leaving the dry-sand cores H in place. When the dry-sand cores K', (shown in Fig. 4,) which form the central aperture of the hub, are placed in the core-prints J', the cope is replaced and the flask is ready for the reception of the molten metal.

It will be understood that any desired number of patterns may be connected together in a single gate and used in the manner described. It will also be understood that the dry-sand cores H, which form the leg-retaining channels of the hub, and the dry-sand cores K', which form the central aperture of the hub, are prepared in ordinary core-boxes used for such purposes preparatory to use. While owing to the fact that each pattern in the gate is provided with a

plurality of dry-sand cores H, said cores H serve as guide-bearings to the pattern and facilitate removing the same from the mold, while said dry-sand cores form a much smoother and more perfect leg-retaining channel in the hub than it would be possible to form by the ordinary green-sand cores heretofore used.

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

1. In a chair-hub pattern the combination of a central body portion provided with a plurality of longitudinal core-receiving channels and a cap-plate formed integrally with said body portion, substantially as set forth.

2. In a chair-hub pattern the combination of a central body portion provided with a plurality of longitudinal core-receiving channels, a cap-plate formed integrally with said body portion and provided with a plurality of studs projecting from the face of said cap-plate parallel with said body portion.

3. In a chair-hub pattern the combination of a central body portion provided at one end with a cap-plate and at its respective ends

with centrally-located core-prints and on its sides with a plurality of longitudinal core-receiving channels, substantially as set forth.

4. The combination of a plurality of chair-hub patterns, each pattern comprising a central body portion provided with a plurality of longitudinal core-receiving channels, a cap-plate and two centrally-located core-prints formed integrally with said central portion, substantially as set forth.

5. In a chair-hub pattern the combination of a plurality of central body portions F rigidly connected together, each body portion F being provided with longitudinal core-receiving channels G and a cap-plate I formed integrally with one end of its central portion, centrally-located core-prints J and J' and a plurality of studs K formed integrally with its cap-plate, all substantially as and for the purpose specified.

In testimony whereof I affix my signature in the presence of two witnesses.

JULIUS M. GERMANSON.

Witnesses:

JAS. B. ERWIN;

O. R. ERWIN.