(No Model.)

C. JARECKI.

FLANGE UNION.

No. 304,650. Patented Sept. 2, 1884.

Fig. 1.

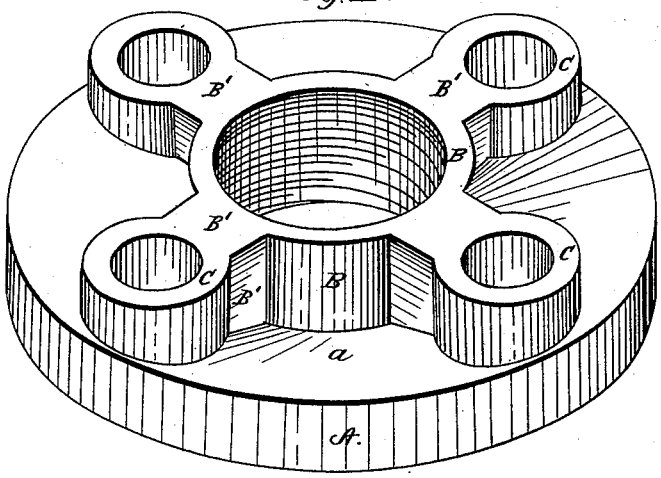


Fig. 2.

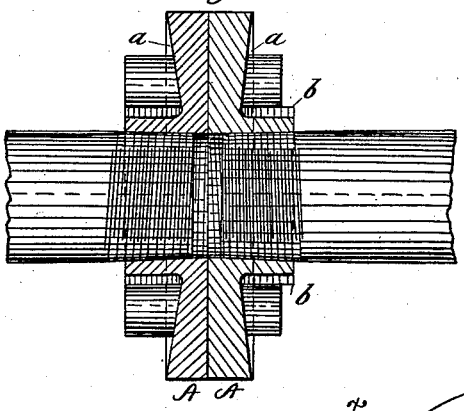


Fig. 3.

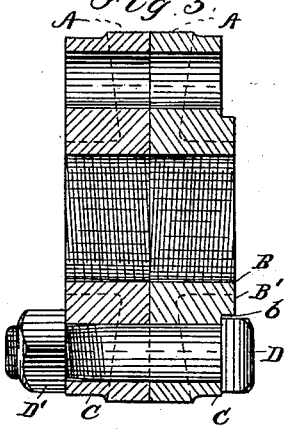
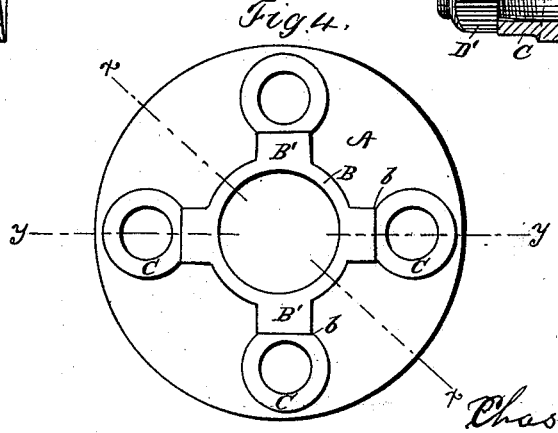


Fig. 4.



Witnesses.
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T. F. Holden.

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Per
Hallock & Hallock Atty's

UNITED STATES PATENT OFFICE.

CHARLES JARECKI, OF ERIE, PENNSYLVANIA.

FLANGE-UNION.

SPECIFICATION forming part of Letters Patent No. 304,650, dated September 2, 1884.

Application filed February 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES JARECKI, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Flange-Unions; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention consists in providing certain new and useful improvements on flange-unions, as hereinafter fully set forth and claimed.

My device is illustrated in the accompanying drawings, as follows:

Figure 1 is a perspective view of one of the plates. Fig. 4 is a plan view of the same reduced. Fig. 2 is a section on the line *x x* in Fig. 4. Fig. 3 is a like view on the line *y y* in Fig. 4.

A A are the plates or disks forming the union. B are the pipe-bosses. C are the bolt-bosses. B′ are radial ribs which connect the pipe-bosses and bolt-bosses. *b* are shoulders formed on one of the plates to hold the heads of the bolts. D are the bolts, and D′ the nuts.

It will be seen that the plates A are plane on their abutting faces, while on their backs they are concave, *a* marking the concavity. This construction disposes the metal in increasing thickness toward the periphery of the disks in exact proportion to the increase of strain, and still leaves the back smooth and easily kept free from accumulations of dirt, and also gives a light and neat appearance. When strength is obtained by a circumferential rim, as is sometimes done, none of these advantages are secured. The pipe and bolt bosses are raised on the backs of the plates high enough to give sufficient length of bearing for the pipe and the bolts, and these bosses are connected together, as shown, by the ribs B′, so as to strengthen the pipe-boss. All these parts B B′ C stand up from the plates in clear relief, and they are all smooth and free from projections or indentations, so that the whole device can be kept clean easily when desired, and for field use it is advantageous, as it affords no place for lodgment of earth or other matter conducive to oxidation.

It will be observed that the plate on which the heads of the bolts rest have the bolt-bosses set a little below the ribs B′, so as to give a shoulder, *b*, for one side of the bolt head to rest against, so it will not turn when the nut is being put on, while the other plate is left smooth, so the nut can turn freely.

It will also be seen that the metal is so disposed that it is not very thick at any point, and that it will consequently become uniformly softened when the casting is made malleable.

What I claim as new is—

In a flange-union, the combination of the plates A A, each of which is formed with concavities *a a*, and with bosses B and C, and ribs B′, and one of which is provided with shoulders *b* at the outer ends of the ribs B′, as shown, and for the purposes set forth.

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

CHARLES JARECKI.

Witnesses:

JOHN FERRIER,

ROBERT H. PORTER.