(No Model.)

H. GEHNRICH.

GLASS TUBE JOINT FOR SPOUTS OF FLOUR MILLS, &c.

No. 261,088. Patented July 11, 1882.

Fig. 1.

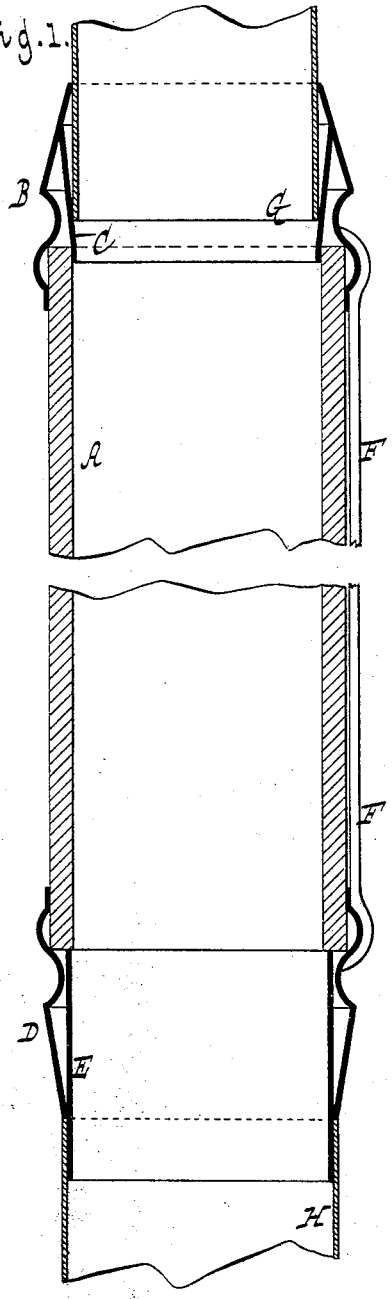


Fig. 2.

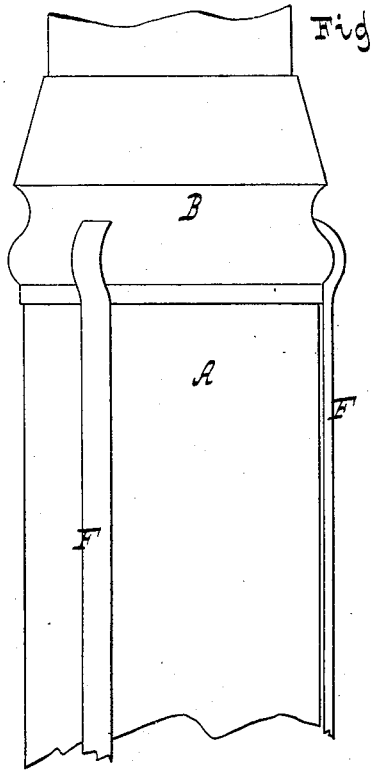
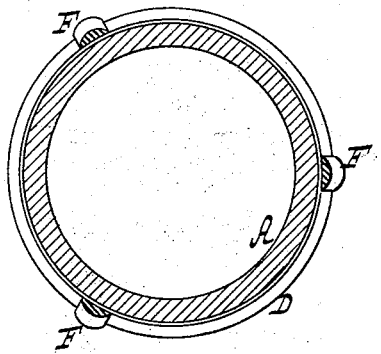


Fig. 3.



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GLASS-TUBE JOINT FOR SPOUTS OF FLOUR-MILLS, &c.

SPECIFICATION forming part of Letters Patent No. 261,088, dated July 11, 1882.

Application filed April 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, HERMANN GEHNRICH, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Glass-Tube Joints for Spouts of Flour-Mills and other Purposes, of which the following is a specification.

This invention relates to the construction of joints for glass tubing, and is especially adapted to spouts or conveyers of flour-mills, but also to other purposes. At the upper end of the glass tube is located an external ring, frusto-conical in shape, to which is secured a second internal ring, which flares outwardly, its inner edge overlapping and extending into the glass tube, so that the upper part of the glass is held between the two rings, while the inner ring acts as a deflector to keep the material passing through the tube out of contact with the upper end thereof, thus insuring a clear passage. At the lower end of the glass tube is located an external frusto-conical ring having secured thereto an internal cylindrical ring, against which the lower end of the glass tube abuts, so that the lower part of the glass tube is held by said two rings while the internal ring clears the inner surface of the tube, leaving it entirely free at the lower end of the tube. The upper and lower external rings are connected together by means of brace-bars to hold the parts in position on the tube.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a longitudinal central section. Fig. 2 is a side view, showing the upper part of the tube. Fig. 3 is a cross-section.

Similar letters indicate corresponding parts.

The letter A designates the glass tube; B C, the external and internal rings at the upper end of the tube; D E, the corresponding rings at the lower end of the tube, and F the brace-bars. Both external rings, B D, are substantially of frusto-conical shape, and the upper internal ring, C, flares outwardly, while the lower internal ring, E, is cylindrical, the inner rings being secured to the external rings preferably by means of solder. The upper inner ring, C, overlaps and extends into the tube A, and by this arrangement the upper part of the tube is held between the rings, while the material entering or passing through the tube from an upper direction is deflected by the internal ring and kept away from the upper end of the tube, so that it is not liable to clog.

The lower internal ring, E, is made of a diameter larger than the inner diameter of the glass tube A, and the lower end of the tube abuts against the ring, and, it being inclosed by the lower external ring, D, the lower part of the tube is held by the rings, while the inner surface is left entirely free at the lower end thereof, owing to the fact that the internal ring, E, clears the said surface.

The brace-bars F are secured to the external rings, B D, at their opposite ends, as by means of solder, and by means thereof said rings are firmly connected together, so that the several parts are securely held in position on the tube.

When the tube is applied to use one end of the spout or conveyer is inserted into the upper external ring, B, so as to impinge against the upper internal ring, C, as at G, Fig. 1, while the other end of the spout is fitted upon the lower internal ring, as at H, said ring being made to project beyond the lower external ring, D, for this purpose.

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

1. The combination, substantially as hereinbefore described, with the glass tube A, of the upper frusto-conical external ring, B, and flaring internal ring, C, secured to the external ring, the whole being arranged in the manner specified.

2. The combination, substantially as hereinbefore set forth, with the glass tube A, of the lower frusto-conical external ring, D, and the internal cylindrical ring, E, secured to the external ring, the whole being arranged in the manner specified.

3. The combination, substantially as hereinbefore set forth, with the glass tube A, of the upper frusto-conical external ring, B, and flaring internal ring, C, the lower frusto-conical external ring, D, the internal cylindrical ring, E, and the brace-bars F, connecting the external rings, the whole being arranged in the manner specified.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

HERMANN GEHNRICH. [L. S.]

Witnesses:
W. HAUFF,
CHAS. WAHLERS.