A. BARASHICK.

DRAW PLATE.

APPLICATION FILED JUNE 16, 1910.

984,737. Patented Feb. 21, 1911.

Fig. 1.

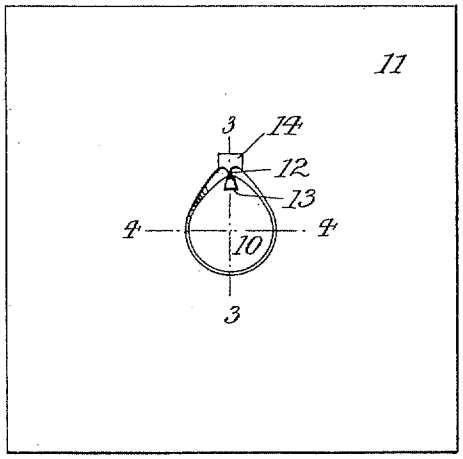


Fig. 5.

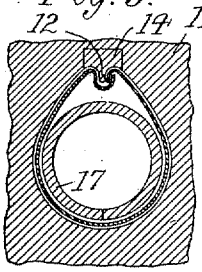


Fig. 6.

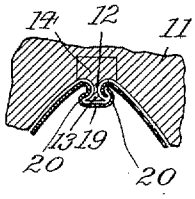


Fig. 8.

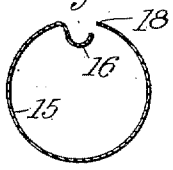
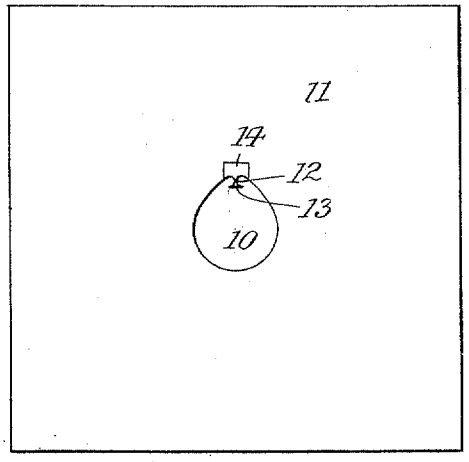


Fig. 7.

Fig. 2.



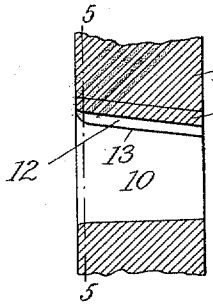


Fig. 3.

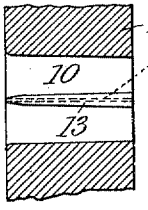


Fig. 4.

Witnesses:
Katherine Koch.
Daniel Holmgren.

Inventor
Aaron Barashick
By his Attorney
Arthur E. Zimpr

UNITED STATES PATENT OFFICE.

AARON BARASHICK, OF NEW YORK, N. Y.

DRAW-PLATE.

984,737. Specification of Letters Patent. **Patented Feb. 21, 1911.**

Application filed June 16, 1910. Serial No. 567,177.

To all whom it may concern:

Be it known that I, AARON BARASHICK, a citizen of Russia, residing at New York city, county and State of New York, have invented a new and Improved Draw-Plate, of which the following is a specification.

This invention relates to novel and effective means for forming the seam on the shell of a lined tube.

The invention is more particularly adapted for forming the joint of brass tubes mounted on iron cores, but may of course be also applied to other lined tubes.

By my invention the seam is quickly formed in a reliable manner and becomes practically invisible after the tube has been finished.

In the accompanying drawing: Figure 1 is a front view of a draw plate for carrying my invention into effect, Fig. 2 a rear view thereof, Fig. 3 an enlarged section on line 3—3, Fig. 1, Fig. 4 a similar section on line 4—4, Fig. 1, Figs. 5, 6 and 7 illustrate consecutive stages of the seam, Fig. 5 being a section on line 5—5, Fig. 3, and Fig. 8 is a cross section of the blank before entering the draw plate.

The draw hole 10 of plate 11 is made ovaliform in cross section, that is to say while its bottom is substantially semi-circular, its top is semi-oval. The size of the draw hole gradually decreases from front to rear, the inward deflection of the semi-oval section exceeding however that of the semi-circular section, as indicated in Figs. 1 and 3. At the crest of the semi-oval portion of the draw hole there projects into the latter a longitudinal inverted T-shaped seam clencher comprising a double concave web or rib 12 and an integral symmetrical head 13, extending to the right and left of the web. The clencher 12, 13 extends through the entire length of the draw hole and has a straight or flat bottom. Head 13 increases gradually in width toward the rear, so that in this way the divergence of the head-edges is opposed to the taper of the draw hole. Head 13 is pointed in front to correspond to the thickness of the web (Fig. 4) said web being here rounded as illustrated in Fig. 3. It is preferred to form rib 12 integral with a separate block 14 which is driven into a corresponding opening of draw plate 11, so that the rib projects into the draw hole but obviously the rib may also be formed integral with plate 11 if desired.

In practice, the unseamed blank 15 is curved and provided along one edge with a longitudinal groove 16 by means of a suitable gage (not shown). This blank is slipped over a tubular core 17 and passed into the draw hole in such a way that the grooved edge 16 of the tube straddles rib 12 and overlies the straight tube edge 18. As the tube is drawn through the hole, the interlocked seam will be gradually widened at its bottom as at 19 and will be folded to the right and left of said widened bottom as at 20. This result is accomplished by the conjoint action of tapering head 13 and the tapering walls of the draw hole, the former effecting a spreading of bottom 19, while the latter cause the edges of the tube to be crowded more and more against the web of rib 12 so as to form folds 20. The above described formation of the joint is materially facilitated by the oval form of the draw hole which converges sharply toward the seam-forming rib 12 and thus crowds the metal against said rib. This crowding may take place unobstructed by core 17 owing to the fact that an ample space in the form of a pointed arch is formed above the core. The tube as delivered from the draw hole is subjected to the action of a set of proper tools which flatten the seam and finish the tube, said tools not forming part of this invention.

I claim:

A draw plate having an ovaliform draw hole tapering from front to back, a double concave web within the crest of the draw hole and having a symmetrical pointed foot which extends to the right and left of the web, said foot extending longitudinally through the length of the draw hole and tapering in a direction opposite to the taper of the draw hole.

AARON BARASHICK.

Witnesses:

FRANK V. BRIESEN,

KATHERYNE KOCH.