## H. F. BARROWS. Chain-Link.

No. 214,869.

Patented April 29, 1879.

Fig. 1.

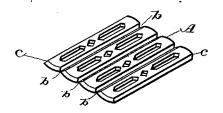


Fig.2.

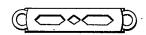


Fig. 3.

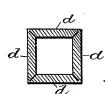


Fig. 4.

Witnesses. Wm. Twell Andrews & M. Louis Aleutic.

Inventor. H.F.Barrows. Y. Eurtis. Atty.

## UNITED STATES PATENT OFFICE.

HENRY F. BARROWS, OF NORTH ATTLEBOROUGH, MASSACHUSETTS.

## IMPROVEMENT IN CHAIN-LINKS.

Specification forming part of Letters Patent No. 214,869, dated April 29, 1879; application filed March 6, 1879.

To all whom it may concern:

Be it known that I, HENRY F. BARROWS, of North Attleborough, in the county of Norfolk and State of Massachusetts, have invented certain Improvements in Chain-Links, of which

the following is a specification.

This invention relates to a class of ornamental chain-links designed mainly for gentlemen's watch chains, which are termed "box-links," for the reason that they are formed of tubes, either square or pyramidal or polygonal, having perforations in the sides, which present a light and ornamental appearance; and my invention consists in a box-link made substantially as hereinafter described.

The drawings accompanying this specification represent, in Figure 1, a view of the blank or planchet before bending; Fig. 2, a perspective view; Fig. 3, a section of a link, and in Fig. 4 a section of the blank before

bending.

In carrying out my invention I cut or punch in a suitable piece, from a sheet of metal, usually brass, plated upon one side with gold, silver, or other metal, or, in other words, rolled plate, a planchet, A, which is of such shape and size as when bent up into a tube will constitute the link.

The die which punches or cuts out the planchet A also cuts in it at the same time perforations in such number, shape, and form as may be requisite to impart the desired design or ornament to the link when completed. I next submit the planchet A to the action of a proper rotary cutter or a planing-machine, and cut or plow longitudinally in its unplated side a series of longitudinal-shaped channels, b b, and I bevel each opposite side of said planchet, as shown at c, the angle of such bevel being the same as one side of each channel b.

The channels b divide the planchet into a series of parallel panels, d d, which constitute the sides of the link; and if an equal-sided link is to be made, these panels are of equal width, and vice versa. The channels b also serve as guides to determine the corners of the link, and enable the planchet to be readily and expeditiously bent into the form of a tube.

The channels b and one of the bevelings c are of such depth as to leave a very slight quantity of metal at the bottom—in fact, but little more than the thickness of the outside plating—by which means the forming up of the link is readily effected, and the corners are sharp and perfect.

After the planchet A has been bent into the form of a tube, as shown in Fig. 4 of the drawings, the abutting united edges c c are to be soldered from the inside, and the other three corners may or may not be soldered, as

practice may determine best.

After the planchet A has been bent into the form of a link, ring B is to be secured to each end, by which several links may be joined to-

gether

By my method of constructing a link, as above explained, it will be seen that I continue the plating of the metal stock in its original thickness entirely about the corners of the link; by this means not only insuring a perfect finish at such corners, but enabling the plating of the link at these points to wear as long as at any other.

My link is made rapidly, and hence economically, as compared withindependent sides having mitered edges, and is more perfect at the corners, and in forming it up and soldering much less time and labor is necessary.

The custom among manufacturing jewelers for some years past in manufacturing box links has been to form the sides of the link of separate independent pieces of metal, mitered and soldered at their edges. It will be apparent at once that my system is infinitely superior to this, not only because I obtain a perfect cover and extend the plating entirely about the cover, but I produce the link at much less expense.

I claim—

A box-link for chains, consisting of a planchet channeled and bent into the form of a box-link with essentially unbroken exterior, substantially as described.

H. F. BARROWS.

Witnesses:

Louis A. Curtis, F. Curtis.