No. 728,020. PATENTED MAY 12, 1903.

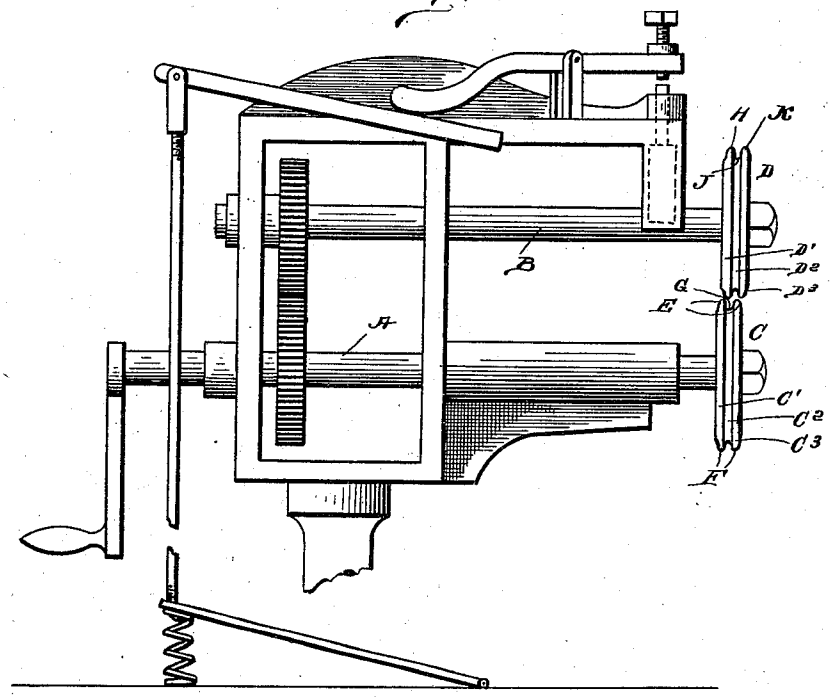
A. G. SCHERER.

SHAPING WHEELS FOR SHEET METAL PIPE CRIMPING MACHINES.

APPLICATION FILED DEC. 18, 1902.

NO MODEL.

Fig. 1.



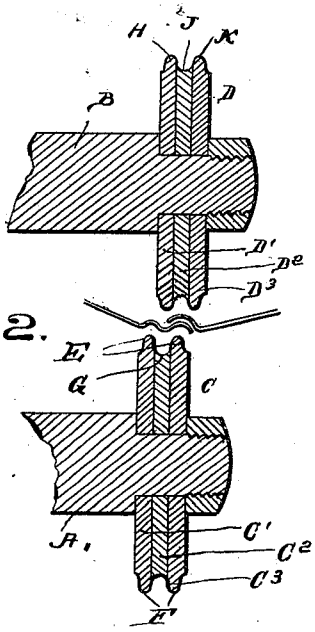
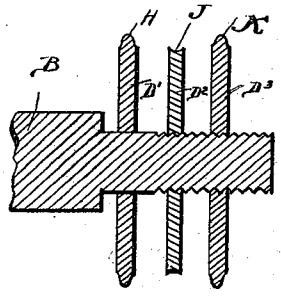


Fig. 2.

Fig. 3.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 728,020. Patented May 12, 1903.

UNITED STATES PATENT OFFICE.

ALBERT G. SCHERER, OF CHICAGO, ILLINOIS, ASSIGNOR TO A. W. GLESSNER, OF CHICAGO, ILLINOIS.

SHAPING-WHEELS FOR SHEET-METAL-PIPE-CRIMPING MACHINES.

SPECIFICATION forming part of Letters Patent No. 728,020, dated May 12, 1903.

Application filed December 18, 1902. Serial No. 135,798. (No model.)

To all whom it may concern:

Be it known that I, ALBERT G. SCHERER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shaping-Wheels for Sheet-Metal-Pipe-Crimping Machines, of which the following is a specification.

This invention relates to improvements in shaping-wheels for sheet-metal-crimping machines, and has special reference to a new design of crimping-wheel which is especially desirable to press together two sections of a sheet-metal-pipe elbow.

I construct my shaping-wheels of separate lateral sections or plates of metal of varying hardness, the sections exposed to the greatest amount of wear being made from softer metal. When these sections become worn by use, they alone may be replaced, thus saving the expense and delay of manufacturing entirely new shaping-wheels of hard metal. I find it possible to keep on hand various-shaped sections of shaping-wheels and by their proper combination to produce shaping-wheels for any desired crimp. This permits a great saving, as otherwise it would be necessary to carry different sets of shaping-wheels for each variation of crimp desired. To attain these objects, the invention consists of shaping-wheels embodying novel features of construction and combination of parts substantially as disclosed herein.

In the accompanying drawings, Figure 1 is a side elevation of a machine upon which my improved shaping-wheels are shown in operative relation. Fig. 2 is a detailed sectional view of two of the wheels, showing their construction and their relation to each other. Fig. 3 is a detail sectional view of one of the shaping-wheels with the sections thereof slightly separated to show more clearly the construction.

Referring to the drawings, A designates a lower shaft and B an upper shaft, which are provided with my lower shaping-wheel C, consisting of the sections C' C^2 C^3, and an upper shaping-wheel D, consisting of the sections D' D^2 D^3. The shaping-wheel C is provided upon its circumference with the two inwardly-inclined surfaces E, which terminate in the rounded ridges F and the centrally-located depressed channel G, the upper shaping-wheel D being provided with two circumferential ridges H and K and the depressed channel J. These shaping-wheels are so mounted on the shafts of the machine that the circumferential ridge H of the wheel D engages the depressed channel G of the shaping-wheel C and the ridge K of the wheel D with its inwardly-inclined face the inclined face E of the outer ridge F of the wheel C.

It will thus be seen that I provide shaping-wheels of very practical construction and in this particular case peculiar-shaped circumferential edges upon opposed shaping-wheels, so that two sections of a small sheet-metal-pipe elbow, or in fact any size, will be uniformly and positively pressed together, thus producing a pair of wheels of a very desirable and practical construction.

What I claim as new is—

A pair of shaping-wheels for sheet-metal-pipe-crimping machines, the lower one of which is provided with two parallel circumferential ridges and two inwardly-inclined beveled surfaces, the upper shaping-wheel being provided with two circumferential ridges to engage one of the inclined surfaces and one of the ridges of the lower shaping-wheel, and a peripheral shoulder providing a slightly-depressed channel upon the outer edge of one of the ridges to engage the inner ridge of the lower shaping-wheel, the outer and inner faces of said shaping-wheels being slightly out of alinement.

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

ALBERT G. SCHERER.

Witnesses:

ELIZABETH LANGE,

JOSEPH W. REES.