No. 660,197. Patented Oct. 23, 1900.

C. McSHERRY.

SHEARS.

(Application filed May 3, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

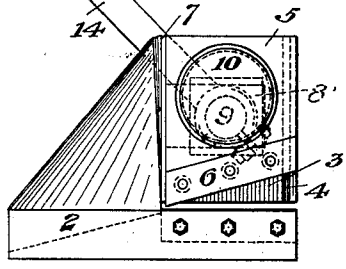



Fig. 2.

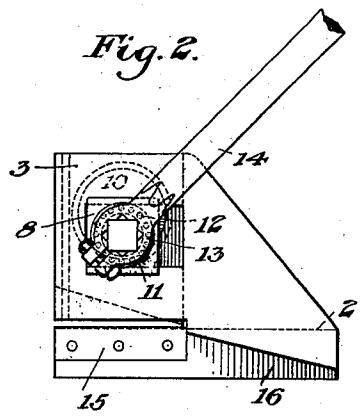



Fig. 3.

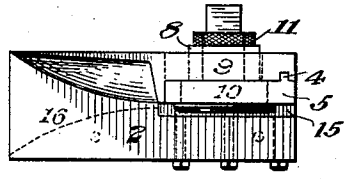



Fig. 4.

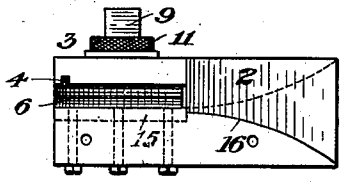



Fig. 5

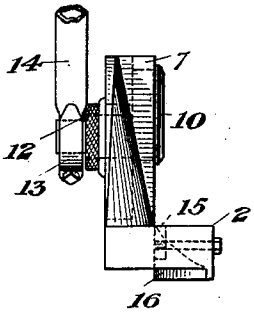



Fig. 6.

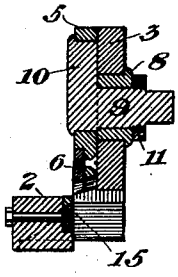



Fig. 7.

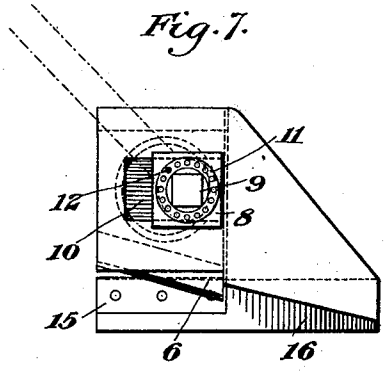



Fig. 8.

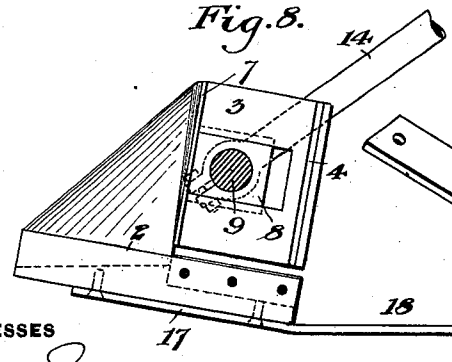
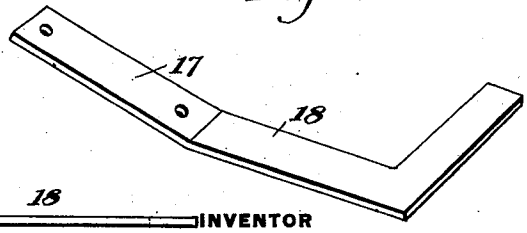



Fig. 9.




WITNESSES

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No. 660,197. Patented Oct. 23, 1900.

C. McSHERRY.

SHEARS.

(Application filed May 3, 1900.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 10.

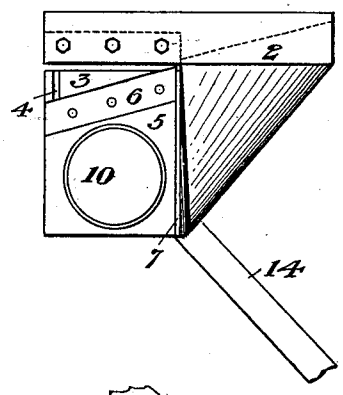
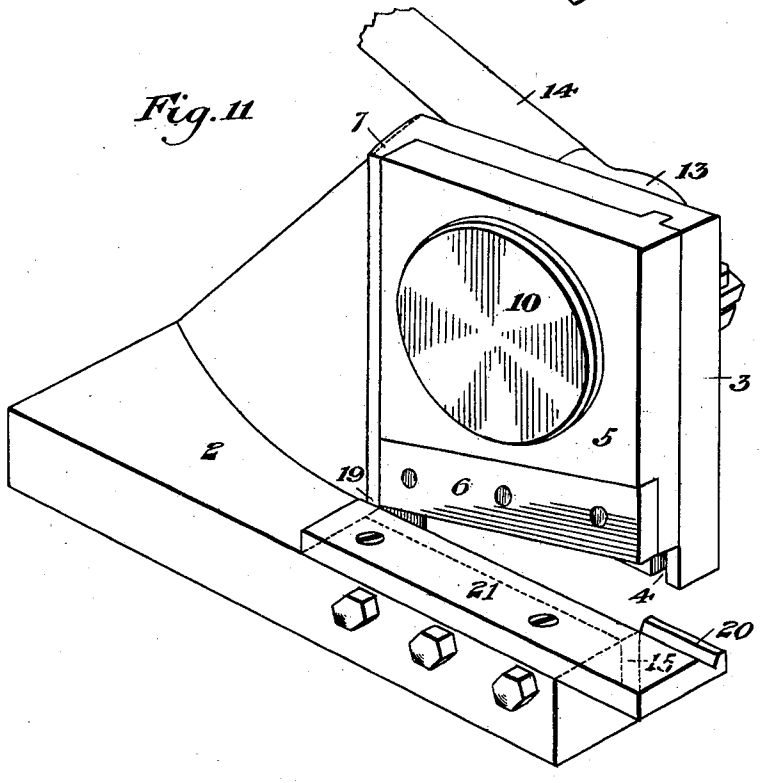



Fig. 11




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# UNITED STATES PATENT OFFICE.

CHARLES McSHERRY, OF PITTSBURG, PENNSYLVANIA.

## SHEARS.

SPECIFICATION forming part of Letters Patent No. 660,197, dated October 23, 1900.

Application filed May 3, 1900. Serial No. 15,338. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES McSHERRY, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Shears, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are side elevations taken on opposite sides of my improved shears. Figs. 3 and 4 are top and bottom plan views, respectively, of the shears. Fig. 5 is a rear elevation, and Fig. 6 is a central vertical section, of Fig. 1 looking toward the left. Fig. 7 is a side elevation similar to Fig. 2, showing the parts in their different positions. Fig. 8 is a side elevation showing the shears arranged for cutting sheets upon the floor, and Fig. 9 is a perspective view of the support used in the form of Fig. 8. Fig. 10 is a side elevation showing the shears arranged for cutting sheets from below, and Fig. 11 is a perspective view showing the shears arranged for cutting a beveled edge.

My invention relates to shears employed for cutting sheets of metal, and it is designed to provide a cheap and simple device of this character which shall be of great power and may be used for cutting straight or curved pieces of any desired shape, as well as beveled or straight edges. It is further designed to improve the action of shears by separating the sheared portions as the sheet passes through the machine.

In the drawings, 2 represents the base-block, having a side extension provided with a vertical bracket and guide 3. The inner face of the bracket is recessed to receive a rib 4 upon the vertical slide 5, which carries the movable shear-blade 6. The rear portion of the guiding part of the bracket is provided with a vertical flange or rib 7, against which fits the rear edge of the slide. The bracket is provided with a transverse hole or slot, in which slides horizontally a squared bushing or block 8, having a central hole receiving a shaft 9, provided with the eccentric or cam 10. The eccentric is provided with an outer flange, which fits against the face of the slide and holds it in place, and the shaft is held in place by a nut 11 engaging screw-threads thereon and having an annular series of holes, one of which is engaged by a pin 12 upon the hub 13 of the operating-handle 14, this hub fitting over the squared outer end of the shaft. By turning the nut and then applying the handle and pin the eccentric may be adjusted at different positions, as desired.

The lower shear-blade 15 is adjustably bolted to the inner face of the base, and the faces of both shear-blades are beveled rearwardly, so as to clear themselves easily in making a cut. The lower shear-blade extends horizontally, while the upper one extends at an angle to the horizontal.

The face 16 of the bracket in the rear of the shear-blade is curved or beveled outwardly, as shown in Figs. 2 and 5, so as to allow a curve to be cut in the sheet in either direction, and the lower face of the bracket is inclined downwardly and rearwardly, so as to bend down the one cut portion of the sheet and clear it from the other portion, thus facilitating the moving and cutting of the sheets.

In using the shears upon the floor it is preferably secured to the upwardly-inclined portion 17 of the supplemental support 18, so that the lower inclined face of the bracket is substantially on a horizontal plane. In this form the shears and the sheet can be easily moved about and the shearing facilitated.

In Fig. 10 I show the shears in reversed position, and the base may be fastened to a board which may be carried on side supports, the operator working from beneath as the sheet moves above him through the shears.

In cutting a beveled edge upon the sheets or plates the end of the strip or sheet is placed in an inclined position, resting against the portion 19 of the bracket and in a groove 20 in an extension of the supporting-plate 21. With the strip held at the desired incline the shears will give it a beveled or inclined edge, while the sheet is held in proper place by the guides.

The advantages of my invention will be apparent to those skilled in the art, since the shears is simple, of few parts, and of great power. It is easily operated and may be used to cut any shape desired, the curved or inclined face of the support for the shaft allowing the cut portion to move properly after it

has passed the shear-blades. The device is adaptable to many different conditions and keeps the cut portions apart, as described.

Many variations may be made in the form and arrangement of the parts without departing from my invention.

I claim—

1. A shear having a vertical support provided on one side with a guide, a vertically-moving slide in the guide, and having a hole containing a cam or eccentric, a shear-blade secured to the slide, and a block arranged to slide horizontally in guideways on the support, and having a hole receiving the shaft carrying the cam or eccentric; substantially as described.

2. A shear having a vertically-reciprocating slide carrying the shear-blade, and a circular hole in the slide containing a cam or eccentric; substantially as described.

3. A shear having a vertical side support with a slot or hole therein, a squared bushing arranged to slide horizontally in said hole, and forming a bearing for a short shaft, and a slide arranged to move vertically on the support and having a hole receiving an eccentric on the said shaft; substantially as described.

4. A shear having a vertical side support, with a guideway on one side, a vertically-movable slide in the guideway having a shear-blade secured thereto, said slide having a hole receiving an eccentric or cam, a horizontal guideway in the support, a squared block movable in said horizontal guideway, and containing a bearing for the eccentric-carrying shaft, and an adjustable handle secured to said shaft; substantially as described.

5. A shear having a vertical support, a shaft extending through a bushing therein, and provided with an eccentric, a vertically-movable slide guided on the standard, and a flange on the eccentric arranged to hold the slide in place; substantially as described.

6. A shear having a lower stationary shear-blade provided with a front extension having a groove therein arranged to support a sheet at an angle in a shear-blade; substantially as described.

In testimony whereof I have hereunto set my hand.

CHARLES McSHERRY.

Witnesses:
H. M. CORWIN,
L. M. REDMAN.