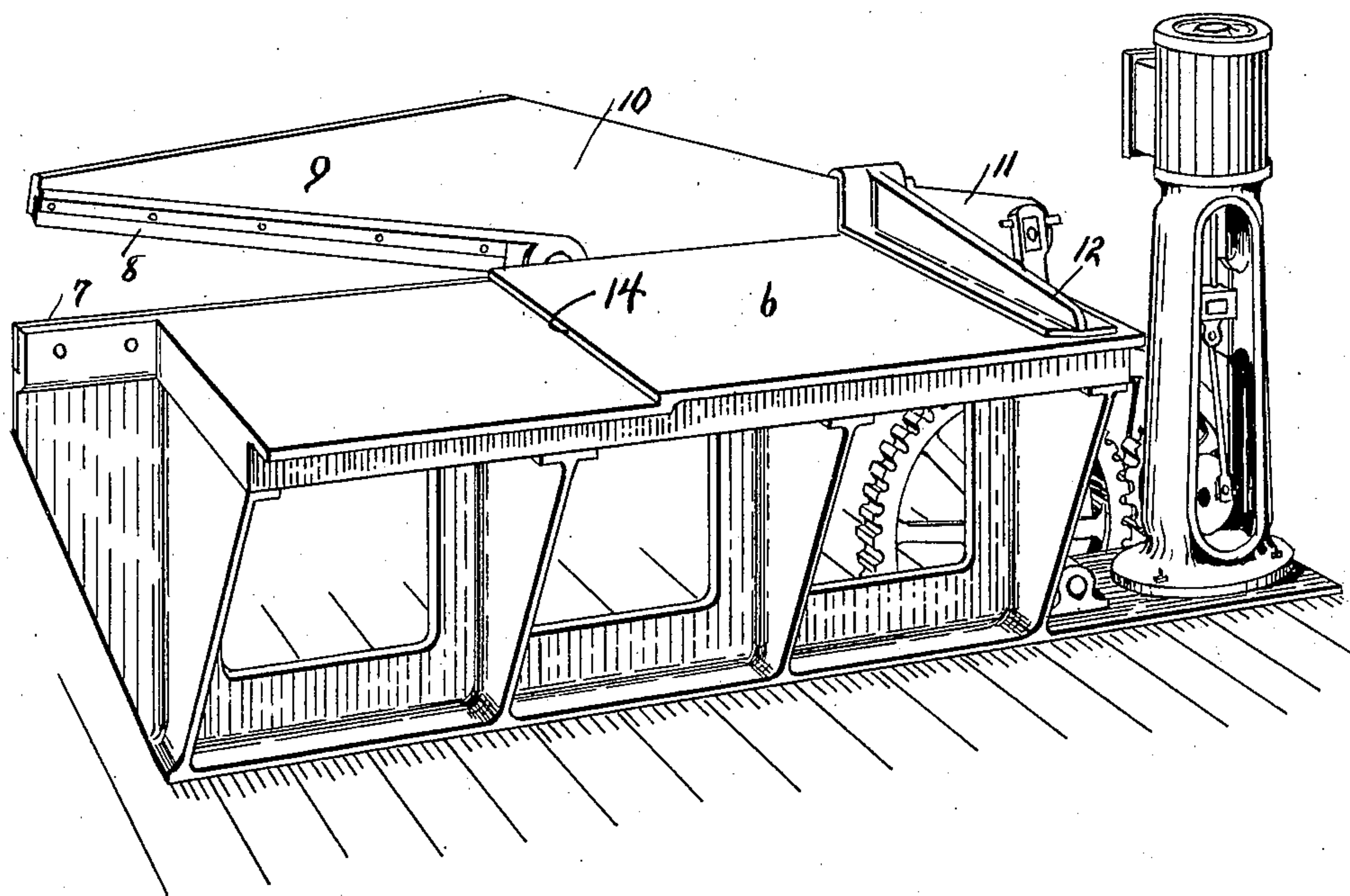


(No Model.)

F. DONNER.  
DOUBLING SHEARS.

No. 606,054.

Patented June 21, 1898.



Witnesses

Burgess Allen  
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# UNITED STATES PATENT OFFICE.

FRANK DONNER, OF ANDERSON, INDIANA.

## DOUBLING-SHEARS.

SPECIFICATION forming part of Letters Patent No. 606,054, dated June 21, 1898.

Application filed September 3, 1897. Serial No. 650,423. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK DONNER, a citizen of the United States, residing at Anderson, in the county of Madison and State of Indiana, have invented a new and useful Doubling-Shear, of which the following is a specification.

My invention relates to an improvement in tables for doubling-shears.

10 The object of my invention is to provide the table of a doubling or other shear with means by which the edges of the material to be operated upon may be easily squared, the said means being such, however, that it will not interfere with other operations to be performed upon the same table.

The accompanying drawing illustrates my invention.

20 The figure is a perspective view of a doubling-shear embodying my invention.

In the doubling-shears now commonly in use in tin-mills a long flat table 6 is provided with one knife 7 of a shear, the other knife 8 being carried by one arm 9 of a lever 10, pivoted to one side of the table. The rear arm 11 of said lever is provided with a transverse arm 12, which extends across the rear end of the table 6. As the lever 11 is swung so as to open the shear-blades the arm 12 is brought near the table, so that if a doubled edge of a sheet of metal be placed thereunder the two portions of the sheet will be brought closely together. After the sheet has been doubled and pressed into shape by arm 12 the operator inserts the edges of the sheet between the shears in order to remove the ragged edges. An expert in the use of such shears soon becomes able to trim the sheets nearly square; but the operation requires great skill, and even by experts many plates are spoiled. To overcome this difficulty, I place upon or form in the table a guide which extends across

the table at right angles to the shears. This guide may be one of several forms; but said guide must be such that it will in no wise interfere with the folding of the sheet or prevent said folded sheet from being drawn forward upon the table and inserted between the shear-blades. For this purpose the forward end of the table is slightly depressed below the level of the rear end, thus forming a shoulder 14, against which the edges of the plate may be butted while the edge at right angles thereto is being trimmed.

The doubling-shear just described is intended to be operated in connection with the usual rolling-mill. After two plates have been separately partially rolled they are reheated and the two placed together and passed through the rolls several times. They are then passed back upon the floor to the heater, who grasps one corner of the plates and folds them upon themselves, bringing the two ends together. The two adjacent corners are then grasped in the tongs, the doubled plates lifted to the shear-table, and the fold placed beneath arm 12, which descends and presses the fold together. The sheets, as they are drawn forward, pass upon the forward end of the table, one of the edges at right angles to the doubled end dropping down and engaging shoulder 14.

I claim as my invention—

The combination with a pair of shears, of a table for supporting the material to be sheared, the said table having one end thereof in a plane lower than the other thus forming a shoulder against which the material to be sheared may be held and presented to the shears.

FRANK DONNER.

Witnesses:

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