

No. 626,617.

Patented June 6, 1899.

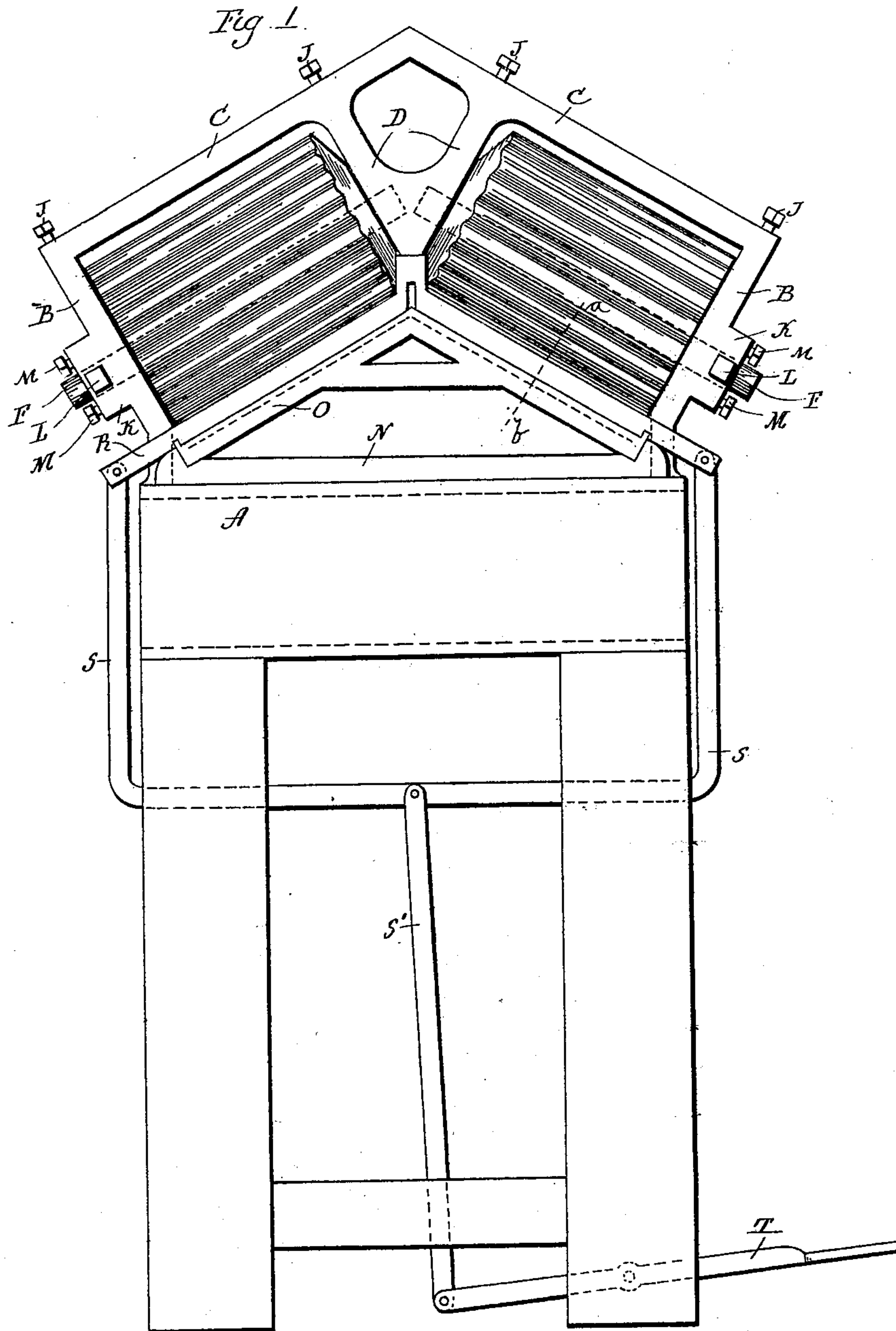
G. D. KIMBERLY.

MACHINE FOR ROLLING SHEET METAL RIDGE STRIPS.

(Application filed Mar. 9, 1899.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses.

J. H. Shumway,  
C. R. Paige

George D. Kimberly—  
Inventor.

By Atty. Seymour T. Egan

**No. 626,617.**

**Patented June 6, 1899.**

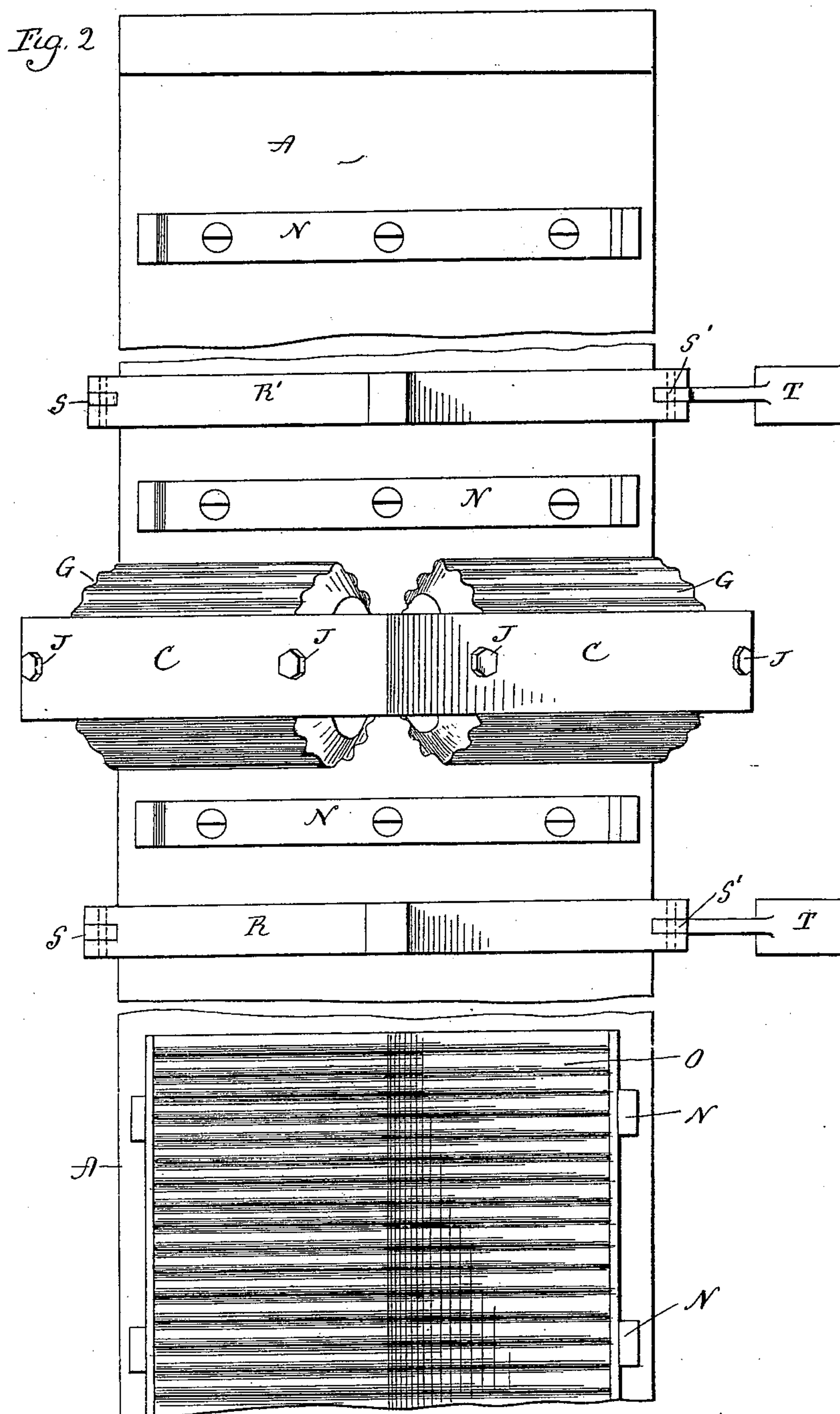
**G. D. KIMBERLY.**

# MACHINE FOR ROLLING SHEET METAL RIDGE STRIPS.

(Application filed Mar. 9, 1899.)

(No Model.)

**3 Sheets—Sheet 2.**



Witnesses  
J. H. Shumway,  
C. R. Paige

George D. Kimberly  
Inventor.  
By Atty. Seymour & Carr

No. 626,617.

Patented June 6, 1899.

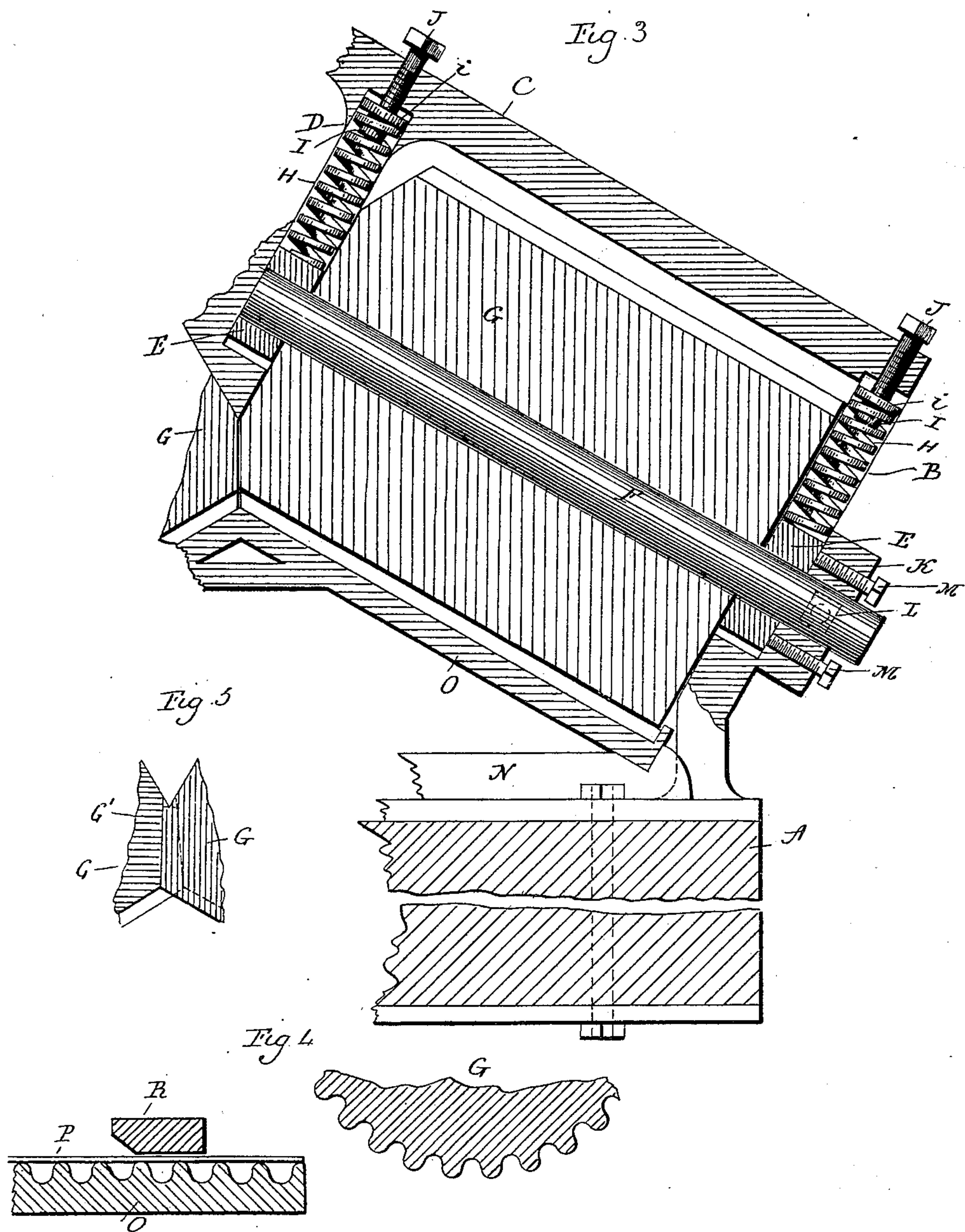
G. D. KIMBERLY.

MACHINE FOR ROLLING SHEET METAL RIDGE STRIPS.

(Application filed Mar. 9, 1899.)

(No Model.)

3 Sheets—Sheet 3.



Witnesses  
J. H. Shumway  
C. R. Pange

George D. Kimberly  
Inventor  
By Atty. Seymour & Co.



# UNITED STATES PATENT OFFICE.

GEORGE D. KIMBERLY, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO  
MARTHA K. LINES, OF SAME PLACE.

## MACHINE FOR ROLLING SHEET-METAL RIDGE-STRIPS.

SPECIFICATION forming part of Letters Patent No. 626,617, dated June 6, 1899.

Application filed March 9, 1899. Serial No. 708,365. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE D. KIMBERLY, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machines for Rolling Sheet-Metal Ridge-Strips; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, an end view of a machine constructed in accordance with my invention; Fig. 2, a top or plan view of the same; Fig. 3, a front view, partially in section, illustrating the bearings for one of the rolls, enlarged; Fig. 4, a sectional view on the line *a b* of Fig. 1, enlarged; Fig. 5, a broken view illustrating rolls for forming flashings.

This invention relates to an improvement in machines for rolling sheet-metal ridge-strips and flashings, and particularly such as are especially adapted for use in connection with corrugated roofing, in which case it is desirable that the ridge-strip should be transversely corrugated, corresponding to the corrugations in the roof and so as to fit closely therein, as otherwise if a flat strip is used with corrugated roofing a space is left between the roof and the ridge-strip.

The object of this invention is to produce a simple device in which the metal may be rolled with corrugations corresponding to the corrugations of the sheets of roofing metal; and it consists in the constructions hereinafter described, and particularly recited in the claims.

The device consists of a flat bed A, suitably supported and upon which is mounted a roller-frame comprising an outwardly-inclined brace B on each side, the upper ends of which are connected by upwardly-inclined bars C C, and to the inner ends of which, near the center, are secured inwardly-inclined supports D, all of which are suitably joined and rigidly connected together and so that the supports D and braces B stand substantially parallel with each other and at right angles to the bar C, which corresponds substantially in pitch to the angle of the ridge-strip. The

braces B and supports D are cut away to receive bearing-blocks E, through which the shafts F extend, upon which shafts the rollers G are mounted so as to freely revolve thereon. The surfaces of these rollers are corrugated corresponding to the corrugations desired to be formed in the ridge-strip, and the rolls are so placed in the frame that their inner edges meet at the lowermost point. Above the blocks E, I arrange strong spiral springs H, in the upper ends of which I place seats I, having flanges *i* to bear upon the upper ends of the springs. Through the bars C and having a bearing therein are set-screws J, which are adapted to bear upon the seats I, so that if the screws be turned inward the seats I will be forced downward, and hence compress the springs H, so as to force the bearing-blocks E downward.

Formed integrally with the braces B are lugs K, through which the outer ends of the shafts F project and which form bearings for set-screws L, which are adapted to be turned against the side of the shaft, so as to lock them to the braces, and set-screws M, which extend longitudinally through the lugs and into contact with the bearing-blocks E, so that those blocks may be forced inward to crowd the rolls together and to take up for wear.

The bed A of the frame is formed at various points with bearings N N, which act as guides for a table O, the upper face of which corresponds to the angle required for the ridge-strip, and this upper face is corrugated corresponding to the corrugations of the rollers G. This table is adapted to be moved longitudinally beneath the rollers. The strip P to be corrugated is placed upon the table, as indicated in Fig. 4, the table being first drawn from beneath the rollers, and then the table is moved forward and the strip thereon will be pressed into the corrugations of the table by the corrugations of the rolls, it being understood that the strip to be corrugated is first bent to substantially the required angle. After the table has been moved beneath the rolls, so as to corrugate the strip thereon, the strip may be removed from the table and the table moved rearward to its former position ready for another strip, or the strip may be returned with the table and then removed,



as desired. If greater pressure is required, the screws J are turned inward, and they may be so turned until the springs are practically set, so that the bearings rest on the bottom of the recesses in the braces and supports.

In some cases it may be desirable to hold the strip on the table, in which case I provide two yokes R R', one in front of and the other in the rear of the rolls, the said yokes being wider than the distance between two corrugations, so as to ride over the surface thereof, as clearly shown in Fig. 4. These yokes may be provided with levers S S', in connection with a foot-treadle T, so that the pressure may be applied or released, as desired.

In forming flashings the rolls will be corrugated, as above described, and in addition thereto the beveled portions G' will be corrugated, and so that a strip may be corrugated between one roll and the table and between the beveled portions of the rolls.

It is apparent that the rolls may be otherwise supported and that the table may be constructed and adapted to be automatically moved forward beneath the rolls. Therefore I do not wish to be understood as limiting my invention to the exact construction shown, but hold myself at liberty to make such changes and alterations as may fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with two independent rollers mounted on axes extending downward from their inner ends so that the said two rolls stand at angles to each other, of a table having faces pitched to an angle corresponding to the angle of the rolls, and adapted to be moved beneath the rolls, substantially as described.

2. The combination with two longitudinally-corrugated rolls arranged at angles to each

other, of a table having its face pitched to an angle corresponding to the pitch of said rolls, and transversely corrugated, substantially as described.

3. The combination with two longitudinally-corrugated rolls mounted in a frame so as to stand at an angle, with the corrugations of one meeting the corrugations of the other, bearing-blocks in said frame holding shafts upon which said rolls may be revolved, and a laterally-corrugated table corresponding in pitch to the pitch of said rolls and adapted to be moved beneath them, substantially as described.

4. The combination with two longitudinally-corrugated rolls, of a frame having bearing-blocks for the shafts upon which said rolls are mounted, springs bearing upon the upper ends of said blocks, and adjusting-screws adapted to compress said springs, and a table corresponding in pitch to the pitch of said rolls, and having its face transversely corrugated, corresponding to the corrugations in the rollers, and adapted to be passed beneath said rollers, whereby a strip of metal on the table will be transversely corrugated substantially as described.

5. The combination with two longitudinally-corrugated rolls mounted in bearings so as to stand at an angle, of a table having a laterally-corrugated face corresponding in pitch to the pitch of said rolls, and adapted to be moved beneath them, and a clamp adapted to be pressed down toward the said table, and whereby a plate thereon may be clamped to the table, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE D. KIMBERLY.

Witnesses:

J. H. THUMWAY,  
FRED. C. EARLE.