

(No Model.)

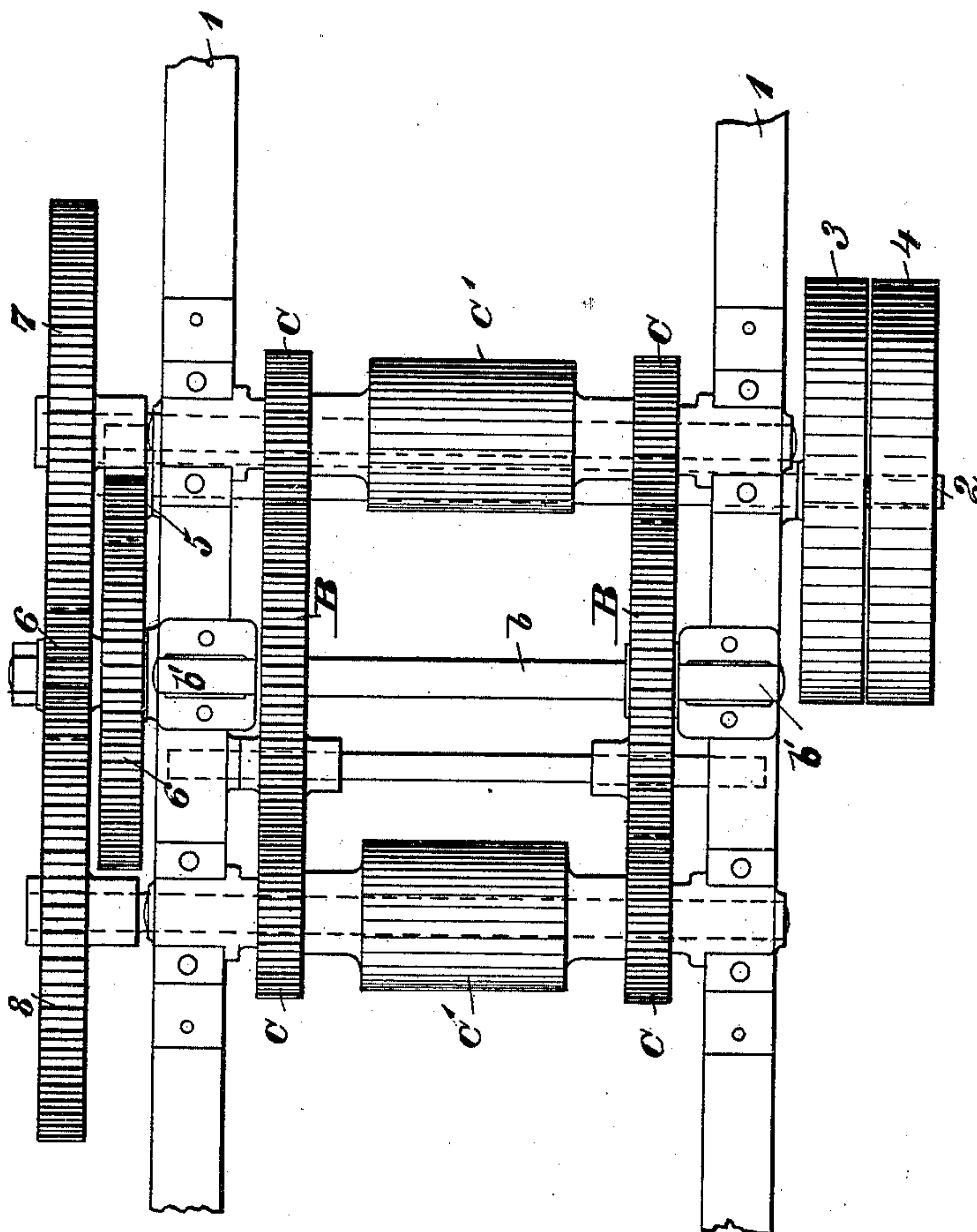
2 Sheets—Sheet 1.

L. POWER.
PLANING MACHINERY.

No. 405,431.

Patented June 18, 1889.

Fig. 1.



WITNESSES:

Theo. Rolle.
Jno. K. Plitt

INVENTOR:

L. Power.
BY G. J. G. & H. J. G.

(No Model.)

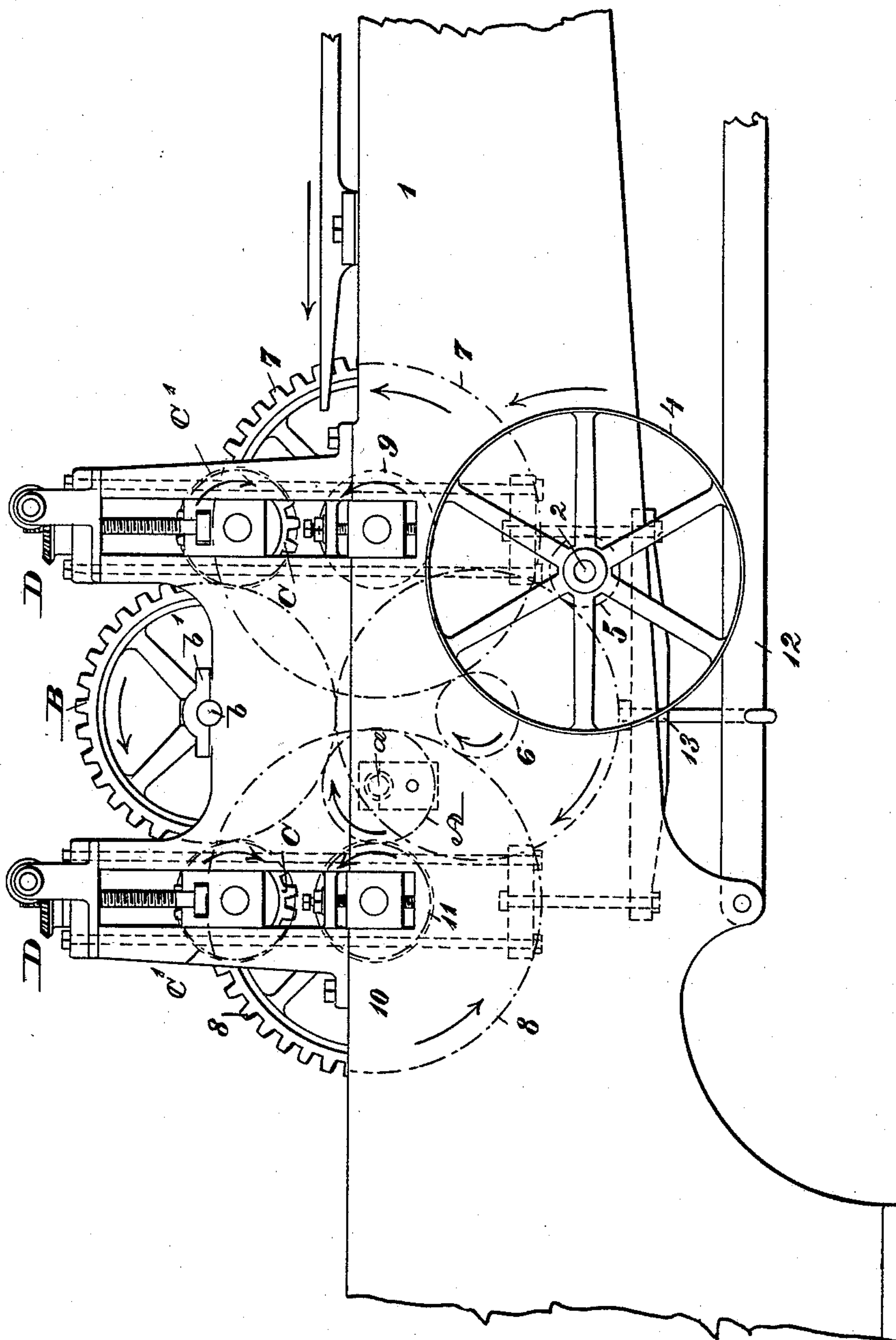
2 Sheets—Sheet 2.

L. POWER.
PLANING MACHINERY.

No. 405,431.

Patented June 18, 1889.

Fig. 2.



WITNESSES:

Ther. Rolle.
Jas. K. Platt

INVENTOR:

L. Power
BY *Diedersheim & Kuntner*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

LAURENCE POWER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO L.
POWER & CO., OF SAME PLACE.

PLANING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 405,431, dated June 18, 1889.

Application filed June 6, 1888. Serial No. 276,238. (No model.)

To all whom it may concern:

Be it known that I, LAURENCE POWER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Planing Machinery, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in planing machinery, and has especial reference to the feeding mechanism.

It has been found that a common defect in feeding mechanism for planing machinery is that the material to be operated upon by the planing mechanism is not fed thereto properly—that is to say, the “feed-rolls” do not run parallel with each other, in consequence of which the planks or boards are tilted to one side, the effect of this, as is evident, being the production of imperfect work.

To overcome this serious objection, numerous mechanisms have been devised, among others the mechanism shown, described, and claimed in the patent of Henry Feyh and John L. Murphy, granted June 23, 1885, No. 320,769, and owned by me. In this patent the upper feed-rolls carry gear-wheels at their outer ends, the gear-wheels at one end of the rollers meshing with a large gear-wheel mounted on a stud secured to one side of the frame, and it has been found by practical test that in consequence of the said large gear-wheel being arranged outside the frame and only one side thereof it will in a short time wear sufficient to cause the rolls to revolve at a slight incline, thereby tilting the boards and feeding the same improperly.

The object, therefore, of this invention is the production of simple, durable, efficient, and inexpensive mechanism which will overcome the defect mentioned by keeping the feed-rolls parallel with each other at all times.

To attain the desired object, my invention consists of the combination of parts herein set forth and claimed.

Figure 1 represents a top plan view of a feeding mechanism embodying my invention. Fig. 2 represents a side elevation thereof.

Similar letters of reference indicate corresponding parts in the two figures.

The numeral 1 designates the frame-work of the machine. In the frame-work is jour-

naled the driving-shaft 2, having the fast pulley 3 and loose pulley 4 on one end and the driving gear-wheel 5 on the opposite end. The driving-gear transmits motion through the system of gearing 5, 6, 7, and 8 to the lower feed-rolls 9 and 10, the said gear-wheels all being mounted on shafts journaled in the frame, and the gear-wheels 7 and 8 are mounted on shafts carrying the lower feed-rolls 9 and 10, and on the shaft of the feed-rolls 10 are gear-wheels 11. The gear-wheels 11 mesh with the gear-wheels A, mounted on a shaft *a*, journaled in the frame, and said gear-wheels A mesh with the gear-wheels B, mounted on a shaft *b*, having its bearings in boxes *b'*, secured to the frame-work. The gear-wheels B mesh with the gear-wheels C of the upper feed-rolls C', journaled in boxes capable of vertical adjustment in the frame-work by means of the adjusting devices D, in the manner well known. It will thus be seen that the gear-wheels B are arranged within the frame and are mounted on a shaft journaled at its outer ends in the frame, and that said gear-wheels all mesh with the four gear-wheels C of the feed-rolls, by which construction the strain is distributed equally on the gear-wheels B and C, and consequently under all circumstances revolve in the same plane, which is the object of the invention.

It will also be understood that by having the said gear-wheels within the frame and away from the ends of the shafts on which they are mounted the strain is brought more central on the shafts, where said shafts are more capable of withstanding the strain.

12 designates the weighted tension-lever connected with the tension devices 13, both of which are of well-known construction.

The operation is as follows: The upper feed-rolls are adjusted to accommodate the material to be fed. Motion is transmitted to the lower feed-rolls by the means described, the wheels revolving, as indicated by the arrows, and from the gear-wheels 11 to the gear-wheels A, which drives the gear-wheels B, operating the upper feed-rolls C, causing said feed-rolls C to revolve parallel with the lower feed-rolls, and consequently feed the material on a perfectly horizontal line to be operated upon by the planing mechanism.

It is evident that by means of the mechan-

ism shown and described the feed-rolls are caused to revolve parallel with each other under all circumstances, and consequently cause the material to be fed properly.

5 It will also be observed that the mechanism is of simple, strong, and durable construction, is easy of application, causes the wear to be distributed equally at all parts, thus preventing a loose working of said parts, and is also
10 inexpensive, thus possessing the features of merit calculated to recommend it as thoroughly practical for the purpose intended.

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

1. In a feeding mechanism for planing machinery, the frame-work, the driving-gear, the train of gearing operated thereby, the lower feed-rolls operated by said gearing, the upper
20 feed-rolls vertically adjustable in the frame, the gear-wheels carried by said upper feed-rolls, and the shaft mounted rigidly in the

frame, carrying gear-wheels which mesh with the gear-wheels of the upper feed-rolls and operating the same, all arranged and operating substantially in the manner and for the
25 purpose described.

2. The frame-work 1, with driving-shaft journaled therein, in combination with the train of gearing 5, 6, 7, and 8, the lower feed-rolls 9 and 10 on the shafts of said gears 7 and 8, the upper feed-rolls C' C', with gear-wheels C C on the shafts thereof, the shaft b, with gear-wheels B thereon meshing with gear-wheels C C, said shaft b and shafts of lower
30 feed-rolls being journaled in fixed bearings in the frame-work of the device, and the shafts of the upper feed-rolls having vertically-adjustable bearings, substantially as and for the purpose set forth.

LAURENCE POWER.

Witnesses:

JOHN A. WIEDERSHEIM,
JAMES F. KELLY.