

A. CANT.
PLANING-MACHINE.

No. 174,944.

Patented March 21, 1876.

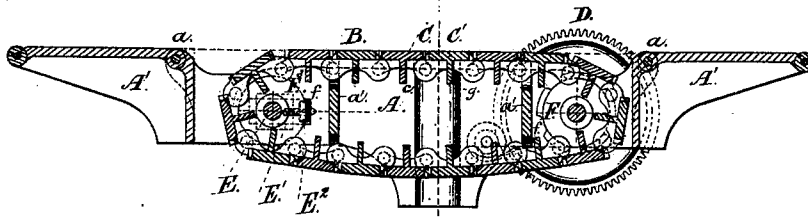


Fig. 1.

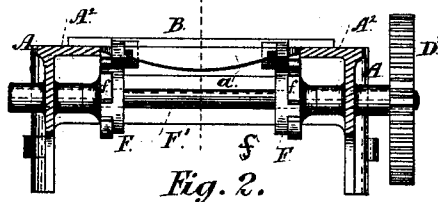


Fig. 2.

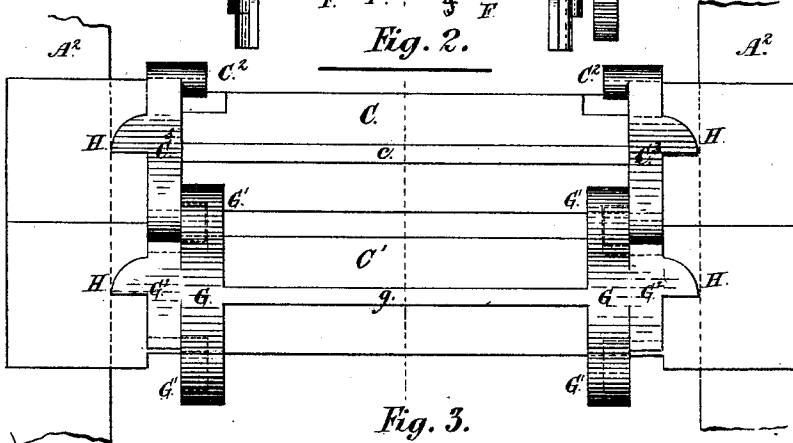


Fig. 3.

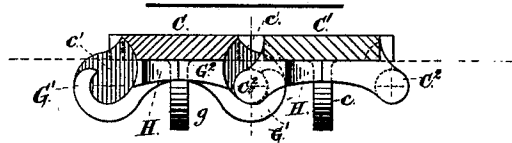


Fig. 4.

Witnesses;

Inventor;

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Adam Cant
per D. H. Cant
att'y

UNITED STATES PATENT OFFICE.

ADAM CANT, OF GALT, CANADA, ASSIGNOR OF ONE-HALF HIS RIGHT TO
JOHN GOURLAY, OF SAME PLACE.

IMPROVEMENT IN PLANING-MACHINES.

Specification forming part of Letters Patent No. **174,944**, dated March 21, 1876; application filed
April 20, 1875.

To all whom it may concern:

Be it known that I, ADAM CANT, of the town of Galt, in the county of Waterloo, in the Province of Ontario, Canada, manufacturer, have invented new and useful Improvements in Planing-Machines, of which the following is a specification:

My improvement relates more particularly to improvements in that class of wood-planing machines commonly known as rotary bed-planers; and it consists, first, in the novel construction of the bed-slats and the peculiar manner in which they are coupled together to form a continuous bed, by means of male and female lugs cast on the ends of alternate slats; it consists, secondly, in the combination of the driving-wheels with the slats, the said wheels having peculiarly shaped and placed teeth, which gear with projecting shoulders cast on each end of the slats.

The principal object of my invention is to form a strong, durable, flexible, and cheap connection between the bed-slats, without the use of detachable coupling-pins or bolts, and at the same time reduce the amount of lost motion caused by friction.

In the accompanying drawings, Figure 1 is a longitudinal section of the inner frame and attachments of a rotary bed-planer constructed according to my invention. Fig. 2 is a cross-section of the same. Fig. 3 is a bottom plan of a pair of slats on an enlarged scale. Fig. 4 is a cross-section of the same.

A is the inner frame, which is attached to an outer frame in the usual way, and which is raised and lowered by the usual screw and nut mechanism.

To each end of A the usual wing-pieces A¹, with end rollers, are attached at *a a*. The sides of the frame are connected together by two solid web-braces, *a'*, and are constructed with inwardly-projecting flange pieces A² at the top. These pieces form the bearing upon which the slats travel, and at each end they are curved downwardly, so that their upper face dips to the circle formed by the slats when on the end rollers.

B is the revolving bed, composed of the slats C and C¹, which are coupled together by

the male and female lugs C³ and G cast on alternate slats, as shown in Figs. 3 and 4. The lugs C³ and G are double-ended, the former or male having two projecting cylinders, C², which fit into recesses *c'* cast in the enlarged ends G¹ of the female lugs G. The shape of the recess *c'* is such that when the slats are coupled together they cannot be uncoupled without placing them in a position they can never assume in the working of the planer.

F are the bed-driving wheels, fitted to the shaft F', which is driven by the toothed wheels D and D' in the usual way. On the periphery of the wheels F lugs or teeth *f* are cast, which fit between the slats, one side bearing against a projection, H, cast on the outside of the lugs C³ and G; thus the rotary motion of the wheels is communicated to the slats, causing them to travel as desired.

On the inner edge of the driving-wheels a shoulder, *f'*, is formed, against which the slats bear when reversing at each end, downwardly-projecting pieces G², being cast on the bottom face of the slats C¹, which and the under side of the male lugs C³ fit the circle of the before-mentioned shoulder *f'* on the wheels F.

The shaft E of the wheels E³ revolves in adjustable flanged boxes E¹, which are fitted in a slot cut in the frame A. The position of these boxes is changed by the adjusting-screw E², one end of which is threaded and enters a similarly-threaded hole in the side of the box, the other end bearing against the frame A; thus, by turning the screws E², the tension of the bed may be increased or lessened, as desired.

c and *g* are braces cast on the under face of the slats for strength. The bed-slats, when traveling on the flanges A², are level, the faces of the ends beyond the edge of the lugs coming together, the remainder of the slat being less in width, leaving an open parallel space between each.

The advantages gained by my invention are, that the slats are strongly and cheaply connected together, with great flexibility, without the use of pins or bolts, which, experience has proven, wear rapidly in use; that the tension of the bed can be adjusted when requiring ad-

justment; that the whole mechanism is strong and durable, and any part can readily be replaced when broken or worn out.

I claim as my invention—

1. The endless rotary bed B, consisting of the alternately-arranged slats C, with double-ended male lugs cast thereon, and slats C¹, with double-ended female lugs cast thereon, arranged and operating substantially as described, and for the purpose specified.

2. The driving-wheels F, with teeth *f* and shoulder *f'*, in combination with the projections H and G² and lugs C³, arranged and operating substantially as described, and for the purpose specified.

ADAM CANT.

Witnesses:

GEO. A. AIRD,
HUGH AIRD.