

No. 848,578.

PATENTED MAR. 26, 1907.

W. A. THELIN.
PROTECTOR FOR PLANER WAYS.

APPLICATION FILED MAR. 29, 1906.

Fig. 1.

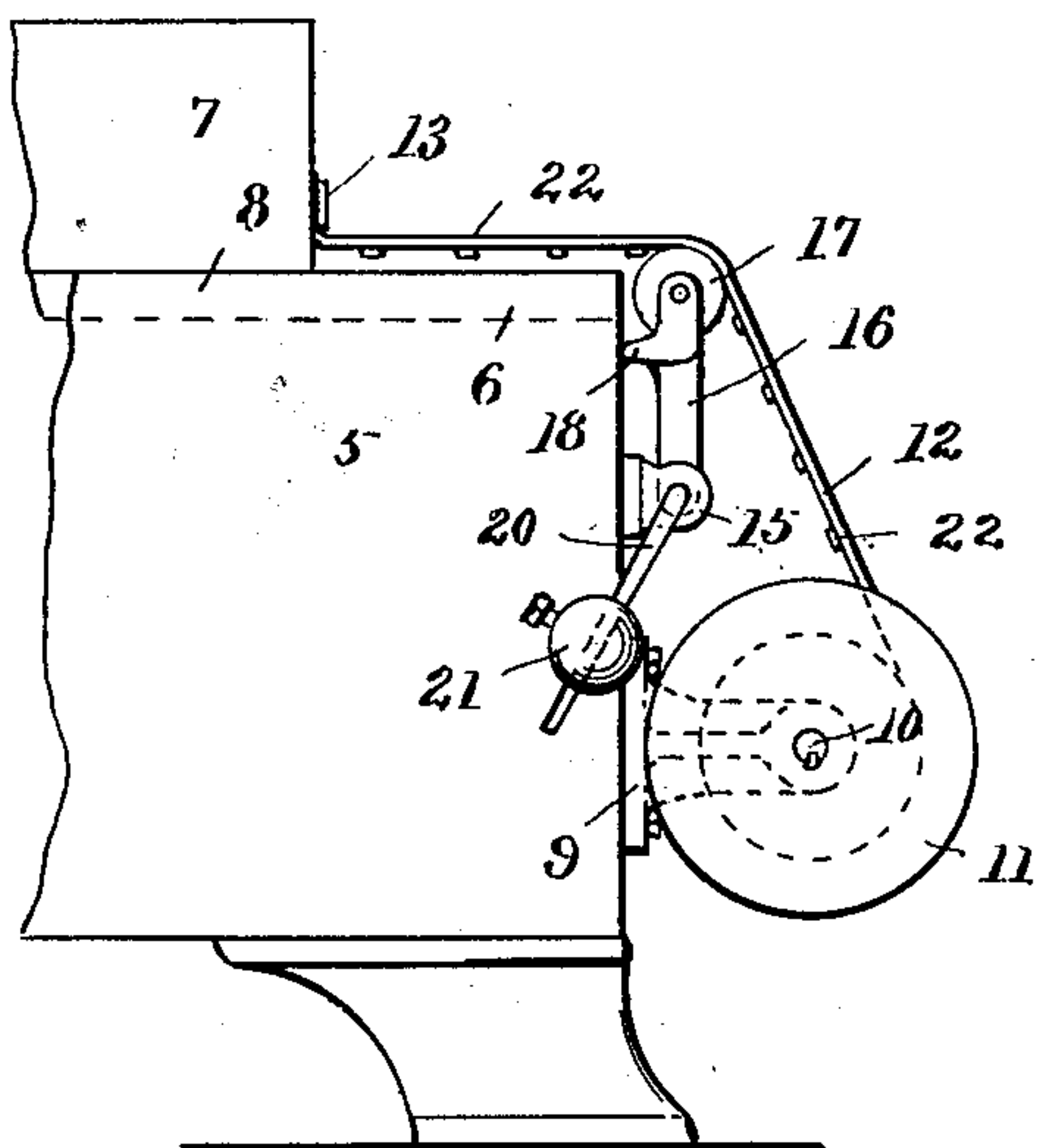


Fig. 2.

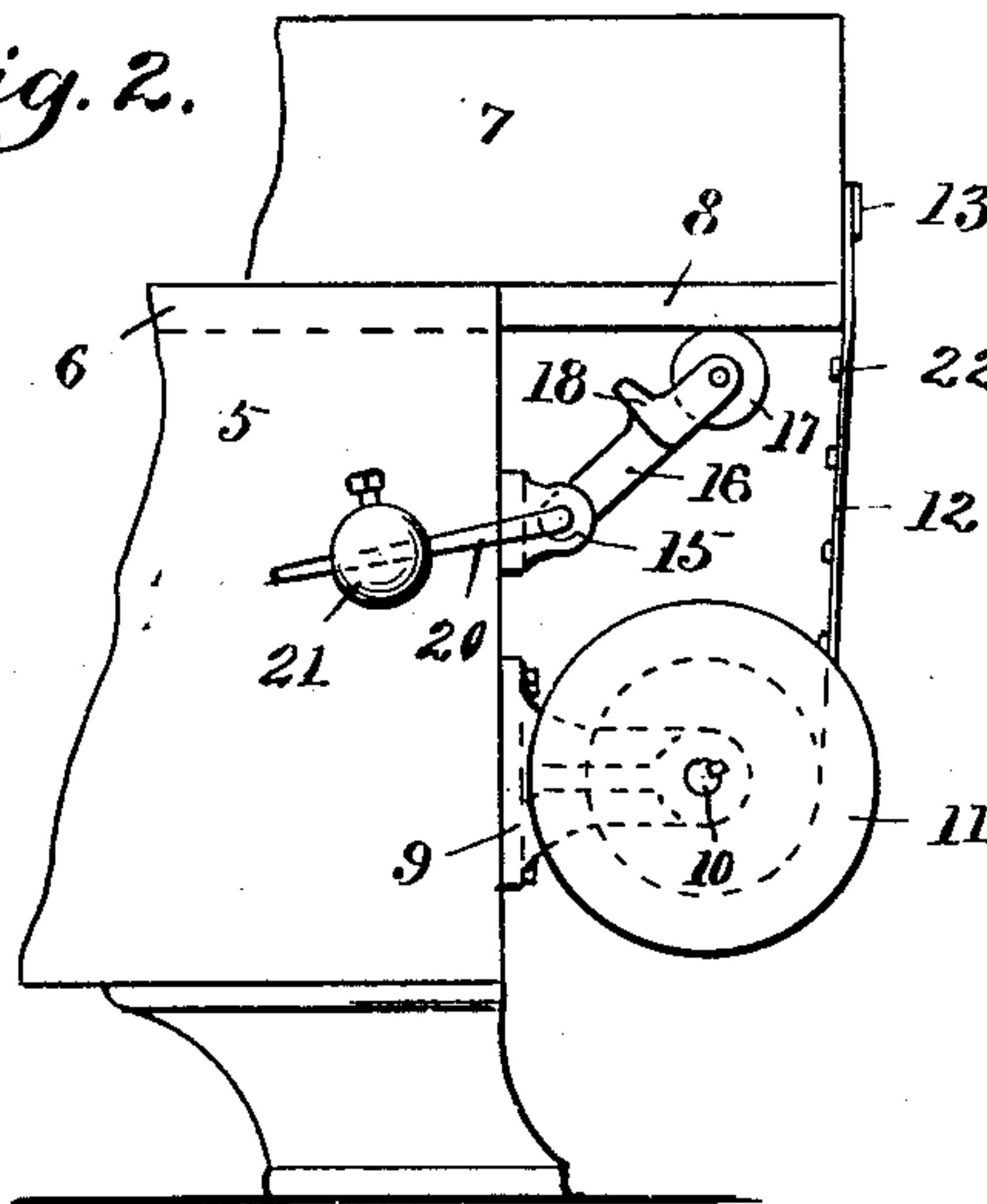
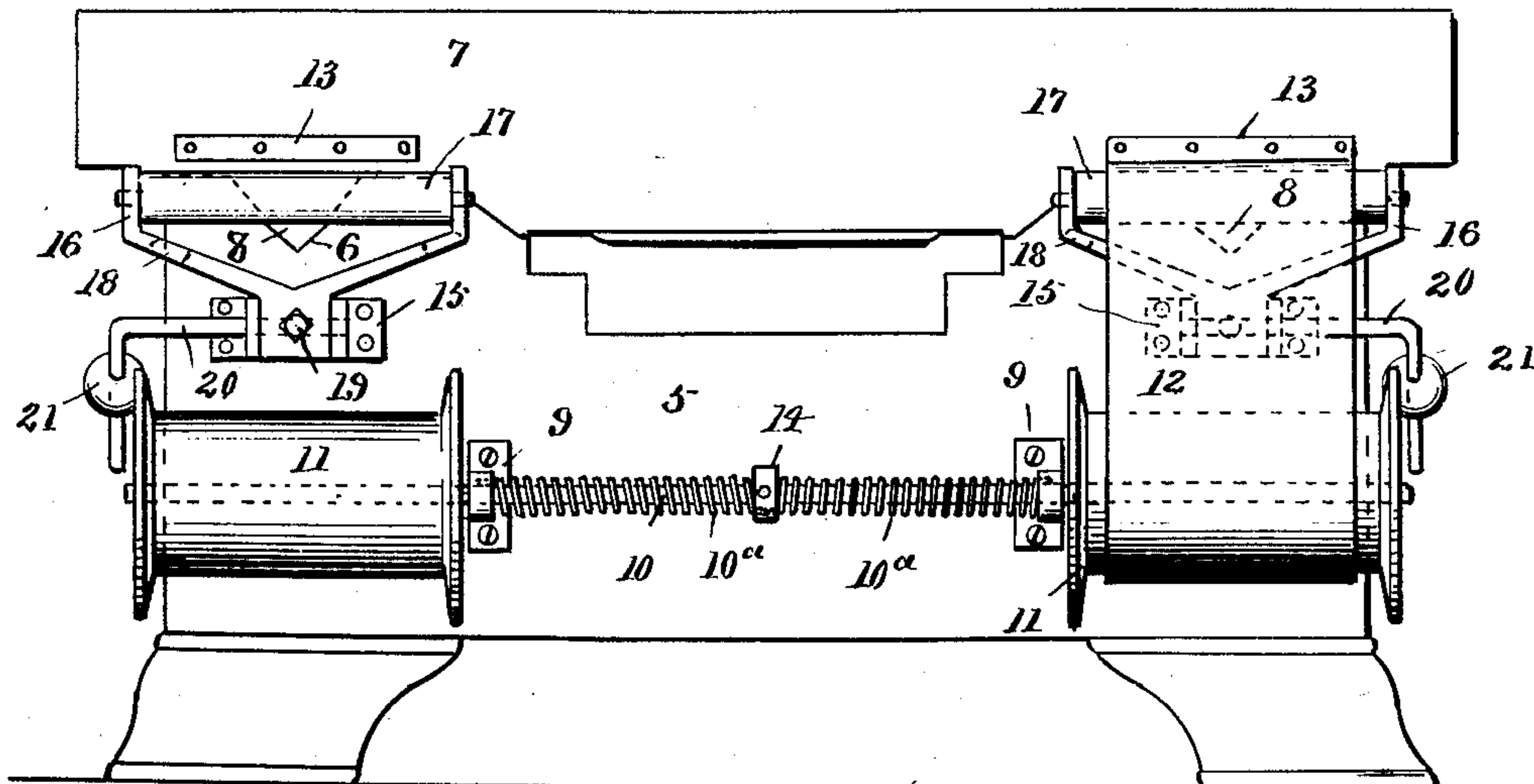


Fig. 3.



Witnesses
Elmer D. Hull,
Ruth Raymond.

Inventor
William A. Thelin
By Chamberlain & Newman
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM A. THELIN, OF BRIDGEPORT, CONNECTICUT.

PROTECTOR FOR PLANER-WAYS.

No. 848,578.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed March 29, 1906. Serial No. 308,717.

To all whom it may concern:

Be it known that I, WILLIAM A. THELIN, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Protectors for Planer-Ways, of which the following is a specification.

My invention relates to a new and useful device for protecting the ways of planers or other parts of machine-tools against injury from settlement of chips, shavings, dirt, or other objects.

It is the purpose of the invention to produce a device which is simple in construction, practical and durable in its operation, which may be attached to new or old planers of most any of the commercial makes to protect the ways thereof in a manner to prolong their life and avoid the necessity of replaning and finishing, as has heretofore been necessary.

With the above and other minor objects in view my invention resides and consists in the novel construction and arrangement of parts shown upon the accompanying sheet of drawings, forming a part of this specification, upon which similar characters of reference denote like or corresponding parts throughout the several figures, and of which—

Figure 1 shows a side elevation of a portion of a planer bed and table with my improved device operatively attached thereto. Fig. 2 is a similar side elevation with the table and connected mechanism in a different position; and Fig. 3 is a rear end elevation of the planer bed and table and attached mechanism shown in the preceding figures, but with one of the flexible covering-strips detached.

Planers are usually provided with two longitudinal ways to support and guide the reciprocating table, and consequently I have shown my device as applied to such a form of construction; but it will be obvious that the invention can be applied to beds having a greater or lesser number of ways without departing from my principle, and therefore I do not wish to confine myself to its application in this connection.

Referring in detail to the characters of reference marked upon the drawings, 5 indicates a planer-bed; 6, the longitudinal ways.

7 represents a reciprocating table having ways 8 upon its under side to engage and operate to and fro within the ways of the bed.

The ways may obviously be the ordinary V-shaped ways as commonly found upon planers or may be of any other design, it being immaterial so far as the practical application and utility of my improvement is concerned.

To the end of the bed I have shown attached, through the medium of brackets 9, a spring-actuated shaft 10, journaled in said brackets and bearing spools 11, around which are wound flexible strips 12, preferably formed of canvas, and one end of which is attached to said spools, while their other ends are connected, as at 13, to the end of the table in any preferred manner. The shaft 10 may be provided with one or more torsional springs 10^a, which are connected at one end to the fixed brackets 9, before mentioned, and other end to a collar 14, pinned to the shaft in a way to normally retain the strips closely wound upon the spool, but to allow the drawing off of said strips from the spools with the inward movement of the planer-table, as will be obviously apparent, thus keeping the ways covered at such times as when the table is in a forward position and when not covered by the table itself.

In order to protect the canvas strips from being drawn over the corners of the planer-bed and injured thereby, I provide for each of the strips a roll and bracket, which are alike in construction and to which I will apply the same reference characters, it being obvious, of course, that in instances where there is but one way to protect only one of such brackets, strip, and spool would be required, whereas if there are two or more strips a like number of connected parts would be necessary.

In practice I find that heavy canvas duck is the most desirable material from which to form the strips and that the best results are obtained in using such material when a series of transverse cleats 22, of wood or like material, are attached to the under side at suitable distances apart, which obviously serve to stiffen and retain the strips in shape.

To the brackets 15, attached to the end of the bed and in line with each of the spools 11, is pivoted a forked arm 16, carrying a roll 17, which obviously is of a length slightly greater than that of the width of the strip and over which the strip is drawn when the planer is in a forward position. This swinging arm is provided with lugs 18, which are

extended inward, as shown in Fig. 1, to engage the end of the bed and hold the roll away from contact with the bed to insure its unobstructed rotation.

5 The roll-arm 16 is secured, by means of a set-screw 19, to a rod 20, journaled in the before-mentioned bracket 15, and the extended outer end of such rod is deflected down and at an angle with relation to the position of said arm, and upon it is mounted a weight 21,
10 secured by means of a set-screw, as shown. This weight serves to normally hold said arm in a vertical position, as shown in Fig. 1, and to insure it retaining said position as the
15 table moves forward and to allow said roll and arm to be swung back out of the way, as shown in Fig. 2, when the said table is in its rearward positions. When in such position, the line of draft upon the strip being more or
20 less direct with the spool and off from the corners, the roll is obviously unnecessary, while when in its forward position it is highly essential.

The operation therefore is as follows:
25 With the forward movement of the table, as shown in Fig. 1, the strip is drawn off from the spool over the roll along the ways of the bed in a manner to completely cover the same against the resistance of the springs 10^a,
30 mounted upon the shaft 10, intermediate of the collar 14 and the brackets 9, whereas with the backward movement of such table the action of such springs are such as to retain the strip taut and snugly wind the same in upon
35 the spools.

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

1. In a protector for planer-ways, the combination with a bed and table, of a strip connected intermediate the ends of the table and bed in line with the ways, a spring-actuated spool to which said strip is connected and adapted to unreel and allow the strip to play
45 out with a forward movement of the table and to wind up when the table travels in the opposite direction, and a yieldable roll situated upon the end of bed and beneath the strip to engage and protect the strip from the
50 edge of said bed.

2. In a protector for planer-ways, the combination with a bed and table, of a flexible strip connected to the end of the table in line with the ways of the bed, a roll-bracket
55 hinged to the end of bed, a spring-actuated spool mounted on the bed and connected with the opposite end of the strip adapted to automatically wind the strip and to allow

it to run out over the roll against the action of the spring.

3. In a protector for planer-ways, the combination with a planer bed and table, of a spool rotatably mounted upon the end of the planer-bed, a flexible strip one end of which is attached to the end of the table and the
65 other to the spool, and a torsional spring to operate the spool to normally retain the strip wound thereon, and a yieldable roll normally located in line with the travel of the table and over which the strip is drawn.

4. In a protector for planer-ways, the combination with a planer bed and table, of a spring-actuated spool attached to the end of the planer-bed, a flexible strip connected intermediate of the said spool and table, an
75 arm pivotally connected to the end of the bed bearing a roll, and means to yieldably hold it in line with the travel of the strip over the edge of the bed.

5. In a protector for planer-ways, the combination with a planer bed and table, of a spring-actuated spool attached to the end of the bed, a strip connected intermediate the table and spool, an arm pivoted to the end of the bed bearing a roll in line with the ways
85 of the table and means connected with the said arm to normally hold the roll in such position and adapted to be shoved back under the way of the table.

6. In a protector for planer-ways, the combination of a spring-actuated spool attached to the end of a planer-bed, a flexible strip connected intermediate of said spool and the end of the planer-table, a weighted and
95 hinged bracket normally bearing a roll in line with said ways and over which said strip is drawn, and transverse cleats attached to the under side of said flexible strip.

7. In a protector for planer-ways, the combination of a spring-actuated spool rotatably
100 attached to the end of a planer-bed, a flexible strip one end of which is connected to the planer-table and the other end to the spool and adapted to be wound thereon and run over the ways of the bed of the planer, and a
105 roll rotatably and pivotally mounted to the end of the planer-bed in line with the table and over which the flexible strip is designed to travel.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 24th day of March, A. D. 1906.

WILLIAM A. THELIN.

Witnesses:

C. M. NEWMAN,
RUTH RAYMOND.