

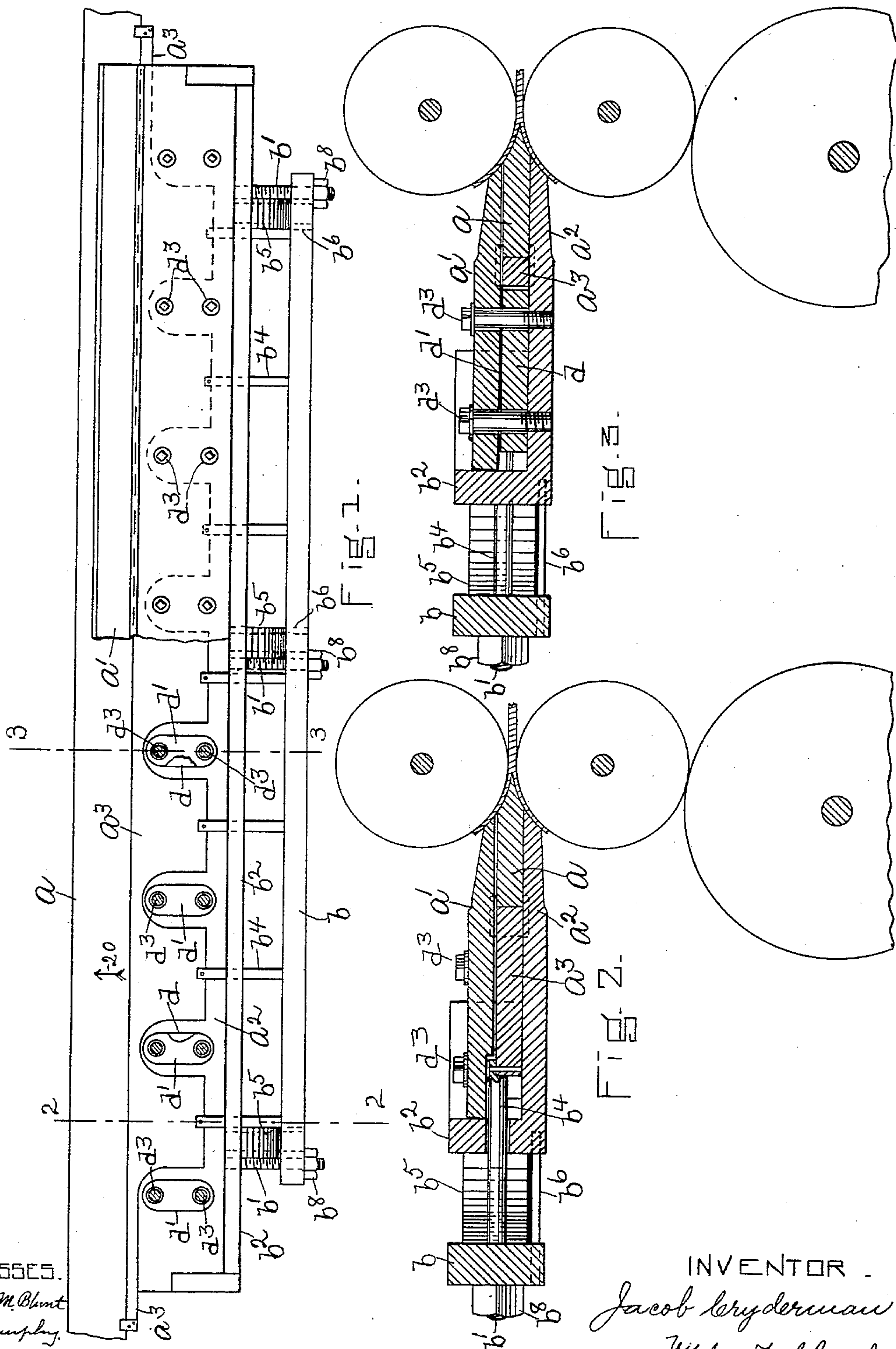
No. 618,060.

Patented Jan. 24, 1899.

J. CRYDERMAN.
LEATHER SPLITTING MACHINE.

(Application filed Mar. 28, 1898.)

(No Model.)



WITNESSES.
Matthew M. Blunt
J. Murphy.

INVENTOR.
Jacob Cryderman
by Jas. H. Churchill
ATT'Y.

UNITED STATES PATENT OFFICE.

JACOB CRYDERMAN, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE
VAUGHN MACHINE COMPANY, OF PORTLAND, MAINE.

LEATHER-SPLITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 618,060, dated January 24, 1899.

Application filed March 28, 1898. Serial No. 675,377. (No model.)

To all whom it may concern:

Be it known that I, JACOB CRYDERMAN, a citizen of the United States, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented an Improvement in Leather-Splitting Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to leather-splitting machines of that class employing a knife in the form of a belt or band, usually an endless one—such, for instance, as shown in United States Patent No. 362,694, dated May 10, 1887—and has for its object to provide means for adjustment of the knife belt or band whereby a more accurate adjustment of the said knife may be effected in a minimum time and whereby uneven splitting of the leather is avoided.

In accordance with this invention the knife belt or band has coöperating with it a substantially long back plate, which is adapted to be moved bodily and the extent of which movement may be accurately predetermined by gages or measuring devices, as will be described.

The knife-belt is movable between suitable jaws, and another feature of this invention consists in providing novel means, as will be described, whereby the amount of clearance between the knife-belt and the jaws may be reduced to a minimum without interfering with the smooth or free passage of the knife-belt between the jaws.

These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a top or plan view, partially broken out, of a sufficient portion of a knife belt-splitting machine embodying this invention to enable it to be understood; Fig. 2, a section, on an enlarged scale, taken on the line 2 2, Fig. 1, looking toward the left; and Fig. 3, a sectional detail, on an enlarged scale, taken on the line 3 3, Fig. 1.

Referring to the drawings, *a* represents a knife belt or band of any suitable or usual construction such as now commonly employed on leather-splitting machines of the

class referred to, the said knife being adapted to travel between the jaws *a'* *a''*.

In accordance with this invention the knife *a* has coöperating with it a back plate *a³* of substantially the same length as the jaws *a'* *a''*. The back plate *a³* is adapted to be moved bodily by an adjusting device shown as a bar *b*, supported by and movable upon threaded rods or bolts *b'*, herein shown as three in number, and having their free ends extended loosely through the adjusting-bar *b* at its opposite ends and at or near its center. The threaded bolts or rods *b'* may be rigidly attached to an upright bar *b²*, herein shown as secured to or forming part of the lower jaw *a²*. The adjusting-bar *b* is adapted to act upon extensions of the back plate *a³*, which extensions may and preferably will be made in the form of rods *b⁴*, projected loosely through the upright portion *b²* of the lower jaw, which acts to guide the back plate in its movement. The forward movement of the adjusting-bar *b* on its supporting-rods *b'* is regulated or controlled by means of a plurality of removable gages *b⁵*, which may be substantially thin pieces of metal, preferably steel plates, and some or all of which may be of varying thickness, according to the amount of adjustment required.

The gage-plates *b⁵* are arranged in sets, herein shown as three in number, and interposed between the adjusting-bar *b* and the upright portion *b²* of the lower jaw, and the said gage-plates may be supported in any suitable or desired manner, and in the present instance they are shown as located between the threaded rods *b'* and the adjacent rod *b⁴* and rest upon pins, plates, or rods *b⁶*, extended from the back plate or bar of the lower jaw. The gage-plates of each set are of like thickness, so that when one or more are removed from each set the bar *b* may be moved forward the same distance for its entire length.

From the above description it will be seen that if it is desired to move the knife *a* forward or in the direction indicated by the arrow 20 this can be done substantially in an instant by turning back the nuts *b⁸* on the threaded rods *b'* and withdrawing one or more of the gage-plates *b⁵* from each pile of gage-

plates and then setting up the nuts b^8 . As the nuts b^8 are set up the adjusting-bar b is moved forward and, acting against the rods b^4 , will move the back plate a^3 and the knife a the desired or required distance. This adjustment is accurately governed by the metal gage-plates b^5 , so that when the nuts b^8 are set up tight against the adjusting-bar b the operator knows that the knife a has been accurately positioned or adjusted throughout the length of the jaws.

In order to obtain a minimum amount of clearance between the upper jaw and the knife belt or band, which amount will be sufficient to allow of free movement of the said knife through the jaws, and yet not sufficient to allow the knife to chatter, a series of non-compressible templets d , preferably steel, are provided, which are accurately made of the same thickness as the rear portion of the knife-belt, and correspondingly-shaped compressible templets d' , preferably thin calendered paper, such as writing-paper, are interposed between the top jaw and the steel templets d . The templets d may be secured between the jaws by means of the clamping-bolts d^3 , employed to fasten the top jaw, as shown in Fig. 3. The steel templets d are non-compressible, while the paper or fibrous templets d' are compressible, and inasmuch as these compressible templets may be made very thin and then subjected to compression by means of the clamping-bolts d^3 it will be seen that the upper jaw a' may be lifted from the knife substantially an infinitesimal amount, but yet sufficient to give the desired clearance to permit easy passage of the knife without danger of vibration or chattering.

By means of the adjusting-bar b acting on the back plate substantially throughout its length the said back plate is moved bodily in its adjustment and the knife-belt for the length of the back plate is uniformly adjusted and supported for a length substantially equal to or greater than the length of the jaws, and as a result no opportunity for sagging or pressing back of the knife at individual points is permitted, and consequently uneven splitting of the leather is thereby avoided.

The jaws a' a^2 , the back plate a^3 , the adjusting-bar b , and the gage-plates form an attachment which can be applied to any knife belt-splitting machine in place of the jaws and the plurality of individually-adjustable plates now commonly employed.

I claim—

1. In a leather-splitting machine, the combination of the following instrumentalities, viz: a knife-belt, jaws between which the said knife is adapted to be moved, a back plate of

a length substantially equal to the length of the said jaws, extensions projecting from the rear side of said back plate, an adjusting-bar cooperating with said extensions, and a plurality of removable gages to limit the movement of the said adjusting-bar, substantially as described.

2. In a leather-splitting machine, the combination of the following instrumentalities, viz: a knife-belt, jaws between which the said knife is adapted to be moved, a back plate, an adjusting device to bodily move said back plate, and removable gages to limit the movement of the adjusting device and thereby regulate the adjustment of said knife, substantially as described.

3. In a leather-splitting machine, the combination of the following instrumentalities, viz: a knife-belt, jaws between which the said knife is adapted to be moved, a back plate to effect adjustment of the knife-belt, a non-compressible templet interposed between said jaws, and a compressible templet interposed between said non-compressible templet and one of said jaws, substantially as described.

4. An attachment for leather-splitting machines, comprising a lower jaw, an upper jaw, a back plate of a length substantially equal to the length of the said jaws, an adjusting-bar of substantially the length of the back plate and adapted to engage the same to move it forward between said jaws, and a plurality of removable gage-plates arranged in sets and serving to limit the movement of said adjusting-bar, substantially as described.

5. An attachment for leather-splitting machines, comprising a lower jaw provided with an upright rear portion, an upper jaw, a back plate interposed between said jaws and provided with extensions projected through the said upright portion of the lower jaw, an adjusting-bar movable toward said upright portion of the lower jaw, and removable gages interposed between said upright and said adjusting-bar, substantially as described.

6. In a leather-splitting machine, the combination of the following instrumentalities, viz: a knife-belt, jaws between which the said knife is adapted to be moved, a non-compressible templet interposed between said jaws, and a compressible templet interposed between said non-compressible templet and one of said jaws, substantially as described.

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

JACOB CRYDERMAN.

Witnesses:

ALMA KRUEGER,
WM. E. MILBRATH.