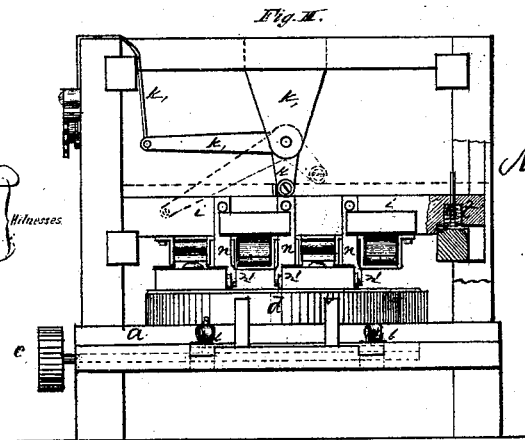
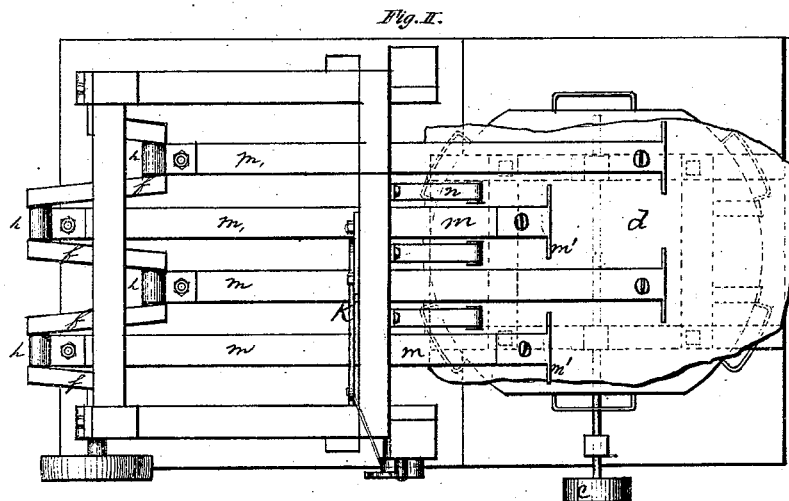
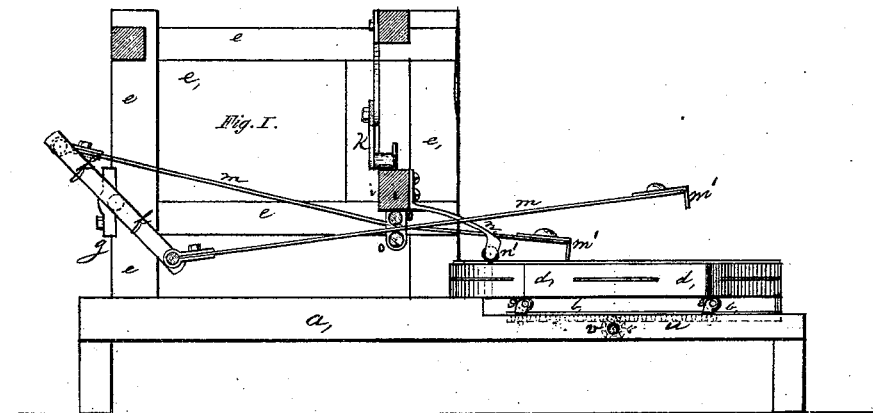


M. B. Gould,

Tanning App's.

No. 110,847.

Patented Jan. 10. 1871.



H. U. Soper
Geo. H. Hughes

Marcus B. Gould

United States Patent Office.

MARCUS B. GOULD, OF BUFFALO, NEW YORK, ASSIGNOR TO HIMSELF
AND WINFIELD S. SHAW, OF SAME PLACE.

Letters Patent No. 110,847, dated January 10, 1871; antedated December 29, 1870.

IMPROVEMENT IN HIDE-WORKING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

I, MARCUS B. GOULD, of the city of Buffalo, in the county of Erie and State of New York, have invented an Improved Machine for Unhairing, Scouring, and Working Hides, of which the following is a specification.

My invention relates to that class of machines for unhairing, scouring, and working hides, in which a gauge or series of reciprocating heads, carrying knives, stones, or brushes are employed, with a movable table on which the hides are placed; and

The invention consists in certain improved combination and arrangement of parts.

In the accompanying drawing—

Figure 1 is an elevation.

Figure 2 is a plan.

Figure 3 is a front elevation.

Like letters of reference designate like parts in each of the figures.

a is the platform of any suitable construction, supported on legs, and preferably provided with casters to enable it to be readily moved.

A convenient size is about ten feet long and five feet wide.

A skeleton-frame or carriage, *b*, provided with two racks, *u u*, on its under side, rests on and operated by two pinions, *v*, attached to a shaft, *p*, provided with a hand-crank, *c*.

Supported on casters, *s*, (reversed,) at each corner of this rack, rests the table *d*, on which the hide to be operated on is placed.

The frame *e e* which supports the reciprocating heads is shown in the drawing as attached to the rear end of the platform *a*, but practically, when the building will admit, it should be suspended from the frame or timbers overhead.

A series of cranks, *f f*, operated by a pulley or a crank at the end of the shaft, is mounted in suitable bearings at the rear of the frame *e*.

m m are pitmen, attached to these arms or cranks *f*, which should be of suitable length to impart the required reciprocating movement to the heads which carry the working-tool at the opposite end thereof.

The cranks *f* are arranged so that while one-half of the pitmen are moving in one direction, the other half are moving in the opposite, as shown.

At the front end of the frame *e* is arranged a cross-beam, *i*, vertically adjustable, and resting on spiral springs, *t*, with hangers attached to the under side, each consisting of two friction-rollers, *o o*, between which the pitmen reciprocate.

This cross-beam is represented as raised and lowered by a lever, *k*, with a cord and pulley, although a rack and pinion, or other suitable device, at the ends of the cross-beam, which works in suitable upright ways or post, may be employed instead.

Projecting downward and forward from this beam are two or more spring-arms, *n*, provided with friction or pressure-rollers, *n'*, which press on the hide on table *d*, and operate to hold it in place thereon, while

they allow the table and hide together to be freely moved thereunder, as required.

The operation of my improved machine is as follows:

The cross-beam with its guide-hangers, *o*, impart to the operating heads of the pitmen a combined reciprocating and oscillating motion, so that the tools operate on the hide only during the movement in one direction.

As one-half of the series of tools acts on the hide while the other half is reversing, and *vice versa*, the resistance which is opposed to the crank-shaft is distributed throughout its movement, and the action of the tools on the hide, also distributed over the surface of the latter, each alternate tool of the series, one-half in all operating at a time, thereby enabling the machine to be more easily operated with less strain on it and the hide.

By adjusting the cross-beam the pressure of the working-tools and rollers *n'* is regulated.

This movement of the pitmen-heads has been produced by other arrangements before the date of my invention.

The hide to be operated on is placed on the table *d*, which is readily moved in a circular direction on the casters *s*, while the rack-carrier, and table are moved back and forth by the crank *c*, as may be required.

The pitmen, or the free ends thereof, should be made slightly elastic, so as to yield as the tool passes over inequalities in the hide.

I am aware that a movable table for the hide, supported on a truck, is old and well known, and such I do not claim.

What I claim as my invention is—

1. The arrangement of the cranks *f* with reference to each other, and with the pitmen *m* and table *d*, so that one-half of the series of working-tools operates on the hide at a time, as hereinbefore set forth.

2. The cross-beam *i* provided with guide-hangers *o o*, arranged and operating with the pitmen *m* and working-tool *m'* at the free ends thereof, substantially as hereinbefore set forth.

3. The spring pressure-arms and rollers *n n'*, combined and arranged with the adjustable cross-beam *i*, pitmen *m*, and movable table *d*, as and for the purpose hereinbefore set forth.

4. The arrangement with the platform *a* and movable table *d* of the frame-carrier *b*, casters *s*, and racks and pinions *u v*, constructed and operating as hereinbefore described.

5. The arrangement with the cross-beam *i* of the supporting-springs *t*, adjusting-lever *k*, as and for the purpose hereinbefore set forth.

MARCUS B. GOULD.

Witnesses:

H. U. SOPER,

GEO. H. HUGHSON.