

May 29, 1915.

DRAWING

229

A careful search has been made this day for the original drawing or a photolithographic copy of the same, for the purpose of reproducing the said drawing to form a part of this book, but at this time nothing can be found from which a reproduction can be made.

Finis D. Morris,  
Chief of Division

AWK.

# UNITED STATES PATENT OFFICE.

ELI KENDALL, OF NEWTON, MASSACHUSETTS.

IMPROVEMENT IN THE MACHINE FOR BREAKING AND SOFTENING HIDES, SKINS, AND LEATHER.

Specification forming part of Letters Patent No. 229, dated June 10, 1837.

*To all whom it may concern:*

Be it known that I, ELI KENDALL, of Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in the Machine for Breaking or Softening Hides, Skins, and Leather; and I do hereby declare that the following is a full and exact description of the said machine as invented or improved by me.

First. I construct a frame about five feet in length, four feet six inches in breadth, and three feet high.

Second. I have a cast-iron cylinder or beam about fourteen inches in diameter and four feet six inches in length, turned straight and smooth.

Third. I have a self-feeding roller on the top of the cylinder or beam, which prevents the hides, skins, or leather from passing through any faster than the cylinder or beam revolves.

Fourth. I have an iron or wooden cylinder about four inches in diameter, on which are fastened by screws what I term my "spring" or "elastic" breakers, more particularly described below. This cylinder, with the breakers, is placed on the top of the other cylinder or beam near the self-feeding roller, and performs the breaking or softening by revolving against the hides, skins, or leather as they pass through over the cast-iron cylinder.

A more definite description of this machine will be had by reference to the drawings accompanying this specification.

A represents the cast-iron cylinder which the hides, skins, or leather are carried over, passing at the same time under the self-feeding roller B and the breaker-cylinder C.

B represents the self-feeding roller.

C represents the breaker-cylinder, on which are fastened the spring or elastic breakers, which perform the work of breaking or softening hides and skins for the lime, and also of softening and skiving leather. For more convenient description I have marked but one of the breakers, which is marked *b b b b a* in Figure 1 on the drawings. They each consist of a steel plate about five inches in length and one-eighth of an inch in thickness. One end is cut with a miter, and about one inch

of the length at this end is bent so as to be at right angles with the rest of the plate, being the part marked *a*. The part *b b b b* is the spring of the breaker, and is bent so as nearly to fit the surface of the cylinder. The part *a* is that which performs the breaking, and has a rounded edge, so as not to cut the hides, &c. One end of the part *b b b b* is fastened to the cylinder by the tight screw *c*, and the remainder, with the breaking part *a*, moves in a direction perpendicular to the surface of the cylinder, the distance from the cylinder within which they shall move being regulated by means of the set-screw *d*. These breakers are placed in a direct line around the cylinder, being placed in pairs from the center, their edges lapping about one-half of an inch, so as to break the joints. As the cylinder revolves they perform a drawing stroke on the hide, skin, or leather, so as not to tear or otherwise injure the same.

D represents the screws for raising and lowering the breaker-cylinder C a proper space from cylinder A, as the thickness of the hides, skins, or leather may require.

E represents screws for increasing or diminishing the power of springs F.

G represents levers resting across the bearings of the feeding-roller B.

H represents weights connected with the ends of the levers G for the purpose of bearing or pressing the feeding-roller B upon the hides, &c.

F represents springs for pressing the breaker-cylinder against the hides, &c., more or less, as they may require.

L represents pulleys or gearing for putting the several parts of the machine in motion.

What I claim as my invention, and desire to secure by Letters Patent, is—

The spring or elastic breakers constructed and applied to the machine for breaking or softening hides, skins, and leather, as above described.

I do not claim the spiral form of the breakers as my invention.

ELI KENDALL.

Witnesses:

A. A. DAME,  
JAS. BENJAMIN.