

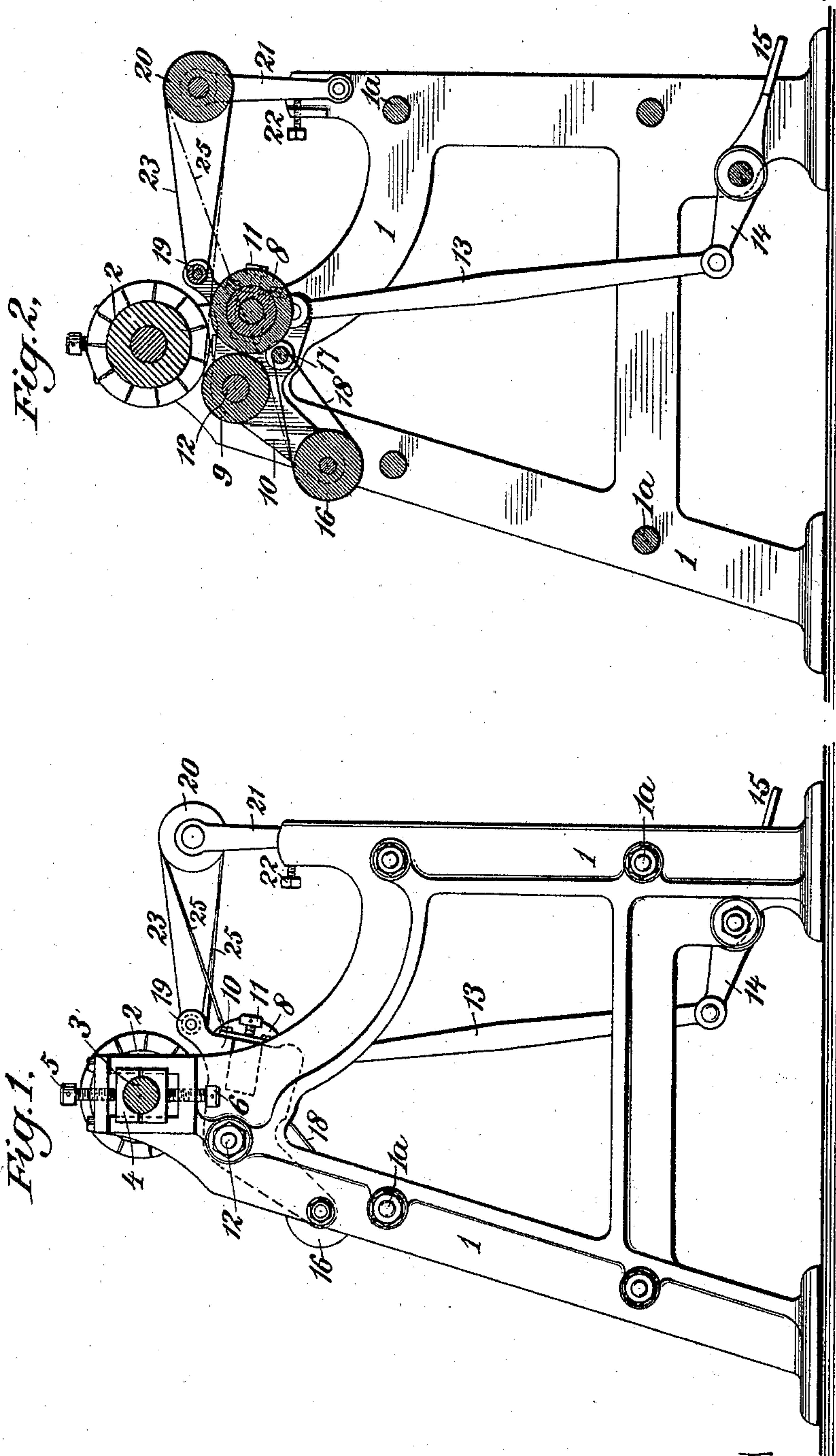
(No Model.)

2 Sheets—Sheet 1.

A. SEYMOUR-JONES.
MACHINE FOR TREATING HIDES AND SKINS.

No. 540,337.

Patented June 4, 1895.



Witnesses:
D. H. Kaybrook
W. S. Tunstall

Inventor:
Alfred Seymour-Jones
by J. P. K. Smith
Att'y.

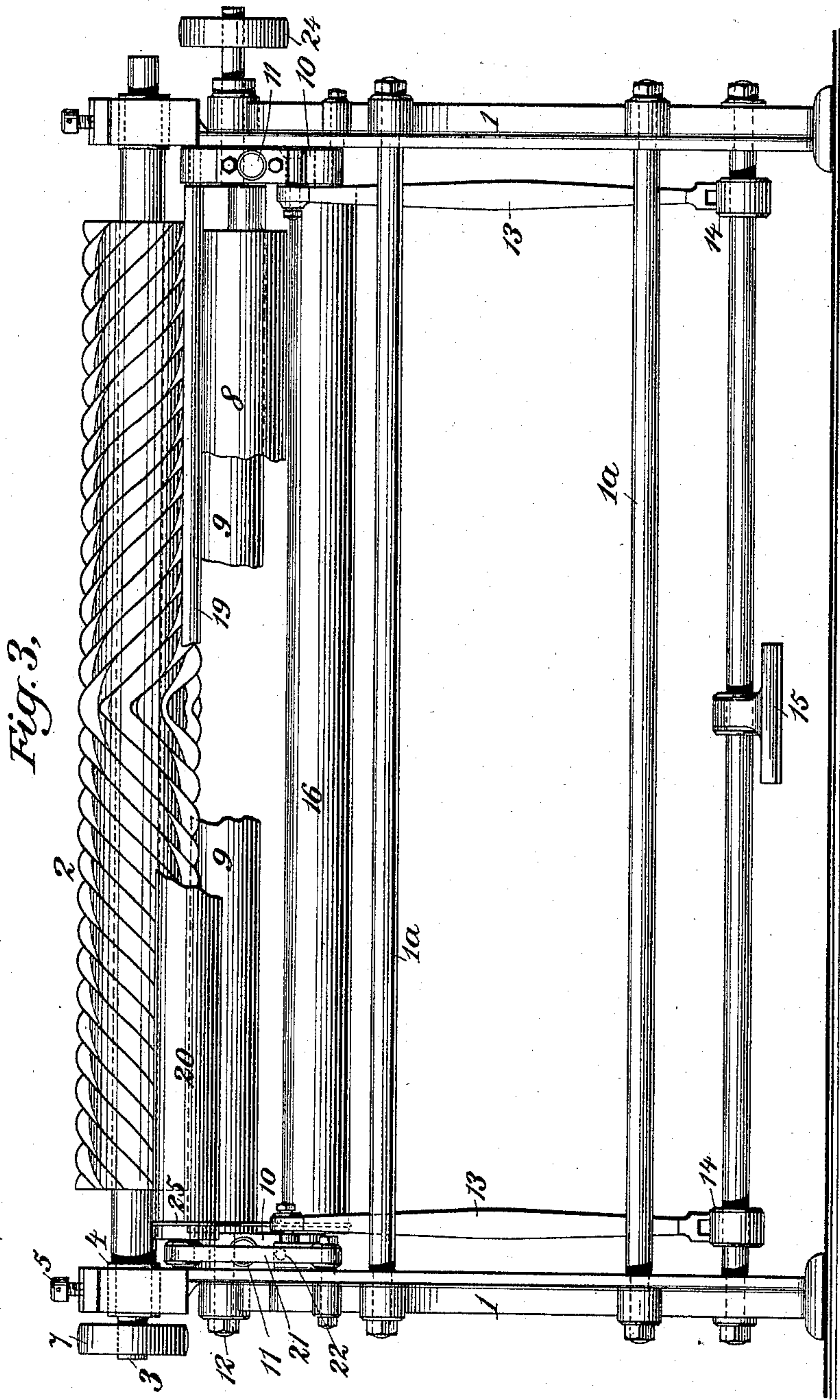
(No Model.)

2 Sheets—Sheet 2.

A. SEYMOUR-JONES.
MACHINE FOR TREATING HIDES AND SKINS.

No. 540,337.

Patented June 4, 1895.



Witnesses:-

O. K. Hayworth

W. S. Hewitt

Inventor:-

Alfred Seymour-Jones
By R. Parker Smith
Att'y.

UNITED STATES PATENT OFFICE.

ALFRED SEYMOUR-JONES, OF WREXHAM, ENGLAND.

MACHINE FOR TREATING HIDES AND SKINS.

SPECIFICATION forming part of Letters Patent No. 540,337, dated June 4, 1895.

Application filed August 28, 1894. Serial No. 521,566. (No model.)

To all whom it may concern:

Be it known that I, ALFRED SEYMOUR-JONES, a subject of the Queen of Great Britain, residing at Wrexham, in the county of Denbigh, England, have invented certain new and useful Improvements in Machines for Treating Hides and Skins; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a machine for fleshing, scudding or cleansing, striking out or slicking, skiving or frizzing, unhairing, or laying out hides, skins or leather as may be necessary within the meaning of the several terms which are well known and understood among hide, skin and leather dressers.

More especially my invention relates to that class of machines in which the knife wheel provided with spiral knives is revolved at a rapid rate of speed and the skins or hides are fed to it. In this class of machines the knife wheel revolves at a much higher rate of speed than the feed apparatus and consequently in many of the machines heretofore used there has been complicated and costly gearing to bring about this change of speed. The use of costly rubber bands to act as feed belts has also swelled the initial expense as well as the expenditures for repairs. The object of my invention is to avoid this costly and cumbersome construction which also absorbed an unnecessary amount of power and to substitute in place thereof a cheap, compact and simple combination of elements which may be driven without the use of toothed gearing of any kind.

The form of machine invented by me to carry out these principles is described in the accompanying two sheets of drawings, in which—

Figure 1 is a side elevation of my machine. Fig. 2 is a cross-section of the same. Fig. 3 is a front elevation with portions of some of the feed-rollers broken away for greater clearness and the belts removed.

Throughout the drawings like reference-numerals refer to like parts.

1, 1, are side frames of the machine which are held together by the longitudinal studs or struts, 1^a.

2, is a well-known form of knife wheel familiar to those skilled in the art.

3, is one of the journals of said knife wheel which runs in the journal boxes, 4.

5 and 6, are upper and lower screws for adjusting the position of the journal boxes and consequently of the knife wheel.

7, is the driving pulley mounted on the shaft or journal, 3, of the knife wheel.

8, and 9, are two coacting feed rollers which are journaled beneath the knife wheel, 2. There are two radial arms, 10, pivoted to the main frame, for maintaining these coacting feed rollers in tangential relation. In the construction shown in the drawings the pivots of the arms coincide with the projecting ends of the shaft, 12, of the feed roller 9. Thus the shaft, 12, performs a double function, and a simplification of the apparatus and reduction of the number of parts result. This condensation of the mechanism is not necessary, though advantageous, and is not essential to my invention.

The feed roller, 9, should preferably be of metal, while that, 8, should be faced with india rubber or some other yielding material. This roller, 8, may be adjusted to and from its coacting roller, 9, by means of the set screws, 11. The radial arms may be oscillated, and consequently the point of tangency of the feed rollers caused to approach or withdraw from the knife wheel by means of the links 13 which are connected to the levers 14, which are operated by the treadle, 15, in the well-known way.

Mounted on an extension of the radial arms, 10, is the belt roller, 16, and mounted on another portion of said radial arms is a little belt roller, 17. Over these rollers runs the delivery belt, 18, which evidently receives the skin as it comes down through the feed rollers, 8 and 9. On the other extremities of the radial arms, 10, is mounted the small belt roller, 19. The larger belt roller, 20, is mounted on links, 21, which are pivoted to the main frame and adjusted by means of the set screws, 22, as best shown in Fig. 2. Around these rollers, 19 and 20, runs the feed belt, 23, which delivers the skin well in between the main feed roller, 8, and the knife wheel.

The feed roller, 9, is driven by belt pulley, 24, which is keyed onto the end of its shaft as

shown in Fig. 3. The feed roller, 9, in turn drives the feed and delivery belts, through the agency of the double cross belt or cord, 25, which passes around the rollers, 9, 16 and 20, as shown in Fig. 2 and partly in Figs. 1 and 3.

The mode of operation of the invention is evident. Driving belts from the countershaft overhead run over the belt pulleys, 7 and 24, driving the former at a much higher rate of speed. They are so connected that the feed roller, 9, revolves in the direction of the hands of a watch when looked at, as in Fig. 2, while the knife wheel, 2, revolves in the opposite direction. Through the agency of the belt or cord, 25, the feed roller, 9, drives the feed and supply belts at a uniform rate of speed which is just a little less than the circumferential speed of the feed roller, 9, itself. The operator spreads the skin upon the supply or feed belt, 23, smoothing it out as it is carried forward. When the forward edge is delivered between the knife wheel and the feed roller, 8, the operator presses his foot upon treadle 15, and lifts the roller, 8, so that it forces the skin up against the knives. The forward edge of the skin is carried on down between the feed rollers, 8 and 9, and after being pulled through is delivered upon the delivery belt, 18. The operator then takes his foot off of the treadle and the combined feed and bearing roller, 8, drops down away from the knife wheel until another skin has been introduced.

It is evident that this machine possesses the advantages set forth as desirable in the introductory portion of this specification. It has the least possible number of parts, has no toothed gearing whatever, and is economical as cheap cotton belts can be used for feed and delivery in place of costly india rubber bands heretofore employed. The least possible amount of power is necessary to drive the machine, and as all the driving is done by belts it is particularly smooth and noiseless in its operation.

Having therefore described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. In a machine for treating hides and skins, the combination of the main frame, the knife wheel journaled on the upper part of the main frame, the two tangentially co-acting feed rollers journaled beneath said knife wheel, the radial arms for maintaining the co-acting feed rollers in tangential relation journaled in the main frame, the treadle and connections for raising and lowering the radial arms, substantially as described.

2. In a machine for treating hides and skins,

the combination of the main frame, the knife wheel journaled on the upper part of the main frame, the two tangentially co-acting feed rollers journaled beneath said knife wheel, the radial arms for maintaining the co-acting feed rollers in tangential relation journaled in the main frame, the treadle and connections for raising and lowering the radial arms, and the feed belt delivering onto said feed rollers, substantially as described.

3. In a machine for treating hides and skins, the combination of the main frame, the knife wheel journaled on the upper part of the main frame, the two co-acting feed rollers journaled beneath said knife wheel, the radial arms for maintaining the co-acting feed rollers in tangential relation journaled in the main frame, the treadle and connections for raising and lowering the radial arms, and the feed belt delivering onto said feed rollers, together with the delivery belt mounted on the radial arms and extending under the feed rollers, substantially as described.

4. In a machine for treating hides and skins, the combination of the main frame, the knife wheel journaled on the upper part of the main frame, the two co-acting feed rollers journaled beneath said knife wheel, the radial arms for maintaining the co-acting feed rollers in tangential relation journaled in the main frame, the treadle and connections for raising and lowering the radial arms, and the feed belt delivering onto said feed rollers, together with the delivery belt mounted on the radial arms and extending under the feed rollers, and the double cross belt which passes around one feed roller, one roller of the feed belt and one roller of the delivery belt, whereby both belts are actuated from the feed roller, substantially as described.

5. In a machine for treating hides and skins, the combination of the main frame, the knife wheel journaled in said frame, the radial arms journaled in said frames, the pair of feed rollers, the shaft of one of which feed rollers furnishes the journals for the radial arms, the belt pulley on the knife wheel shaft, and the separate belt pulley on the above mentioned feed roller shaft, the feed and delivery belts and gearing by which said belts are operated from said feed roller, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED SEYMOUR-JONES.

Witnesses:

W. J. SULIS,
WM. PIERCE.