A. T. TRUE.

MACHINE FOR FINISHING SKEWERS.

APPLICATION FILED DEC. 29, 1909.

970,667.

Patented Sept. 20, 1910.

2 SHEETS—SHEET 1.

Fig. 1

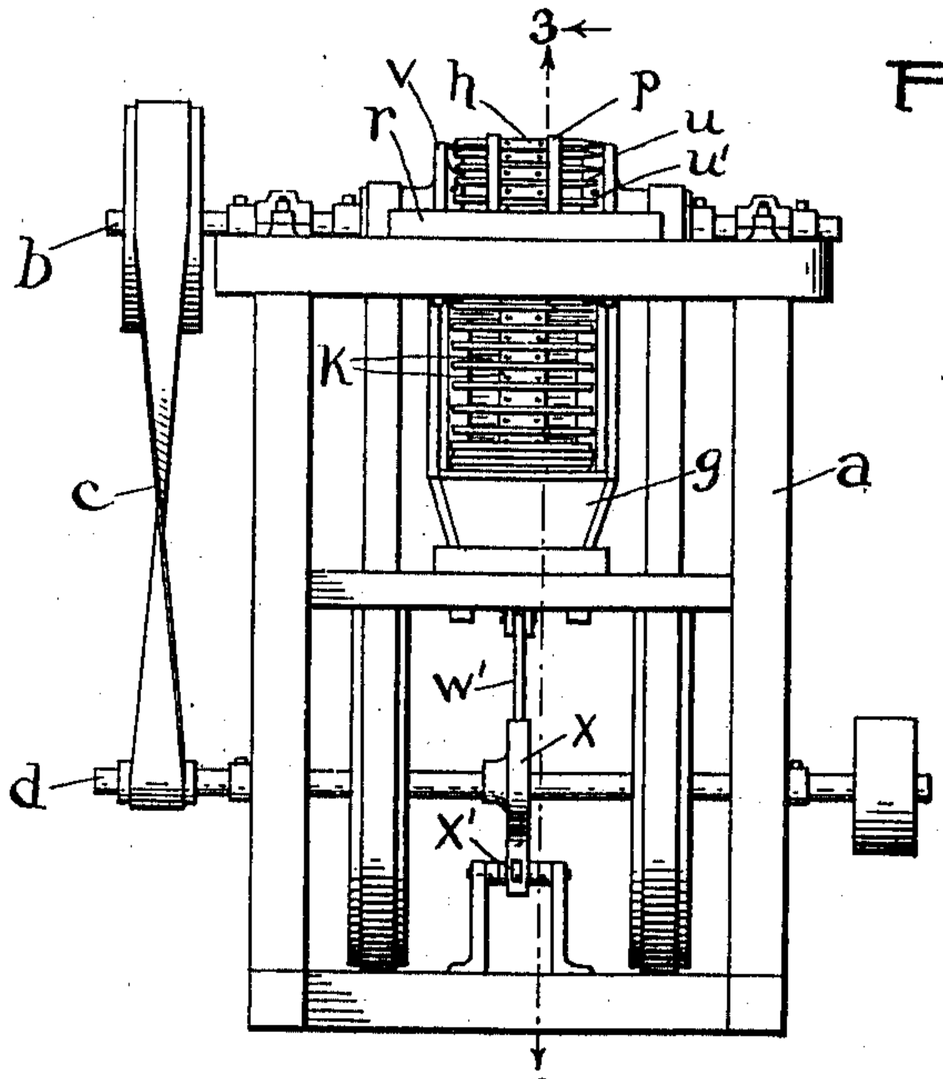

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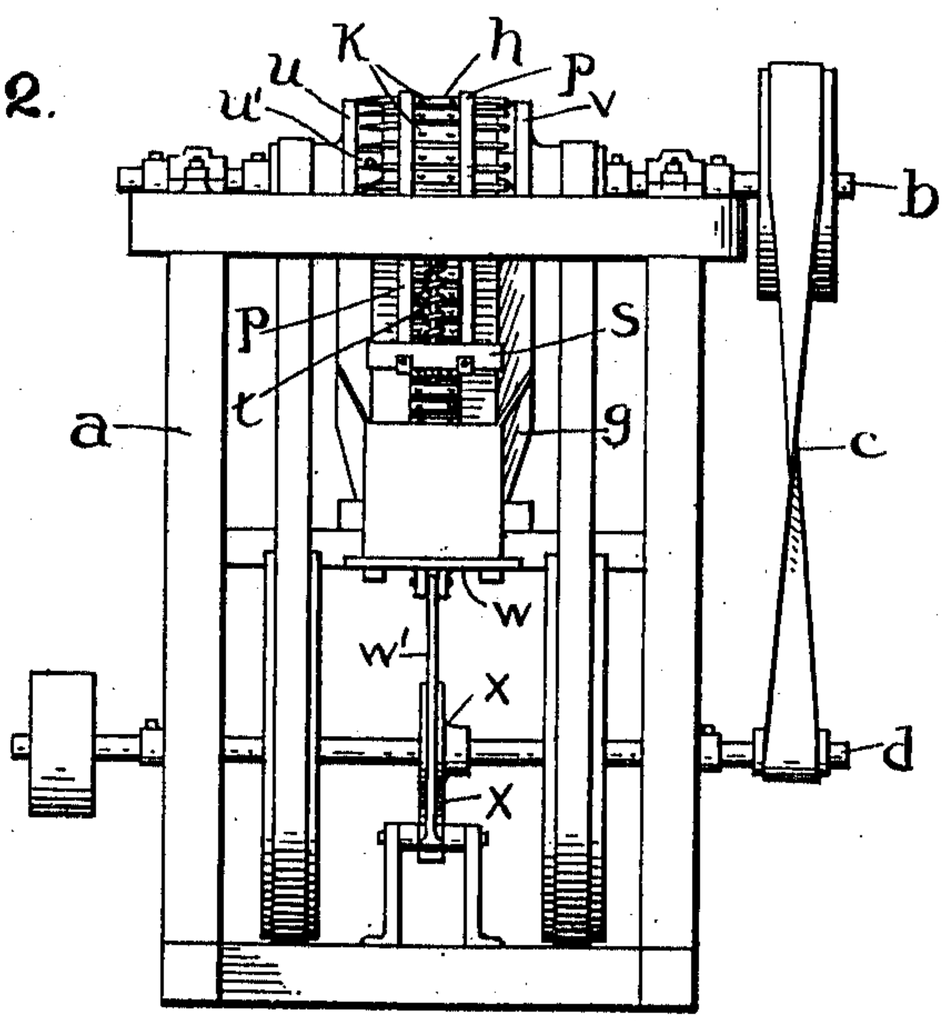
Fig. 2.



Witnesses

Stuart Hilder.

Frances M. Anderson.

Inventor

Amos J. True.

by E. W. Anderson & Son

His Attorneys

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2 SHEETS—SHEET 2.

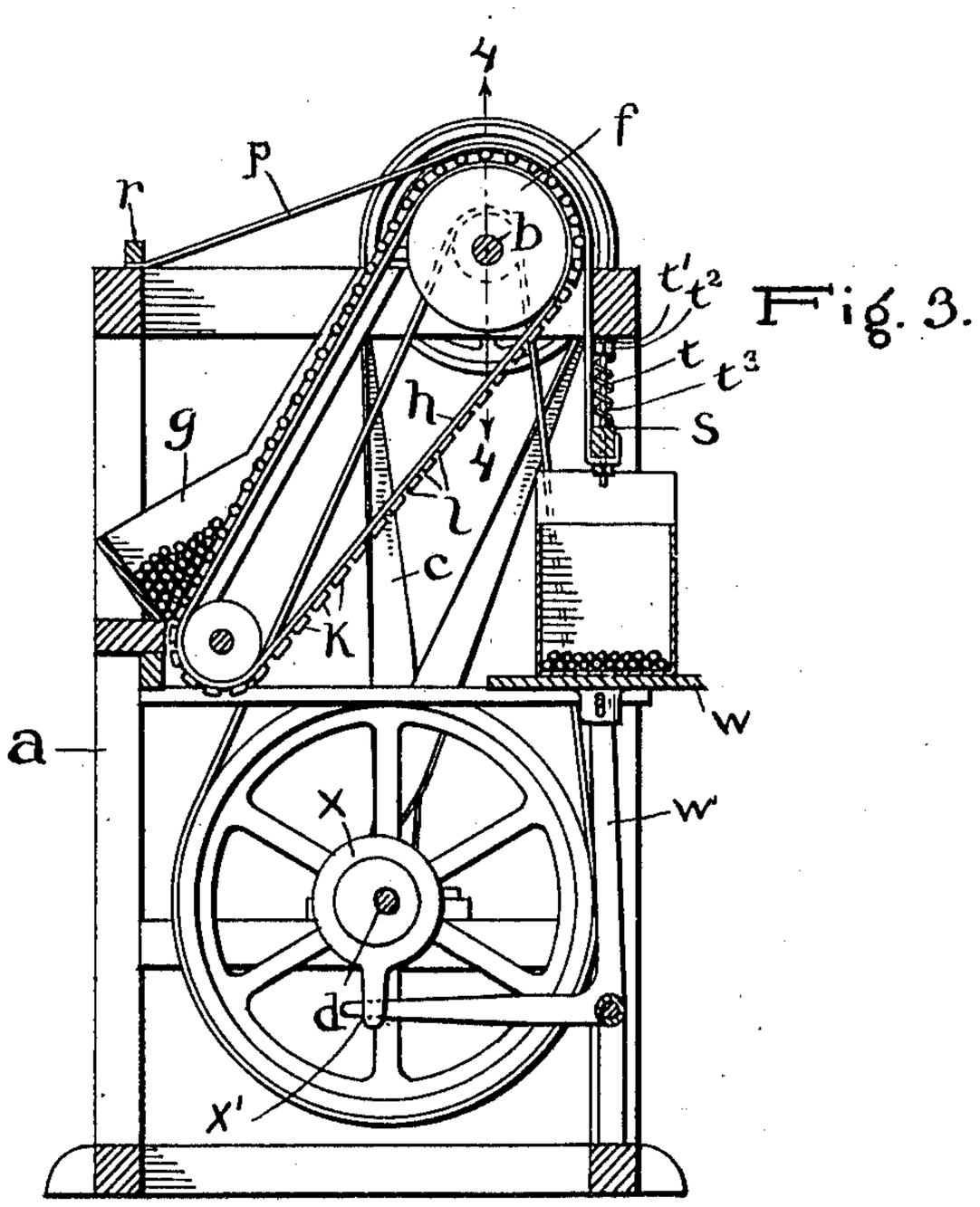


Fig. 3.

Fig. 5.

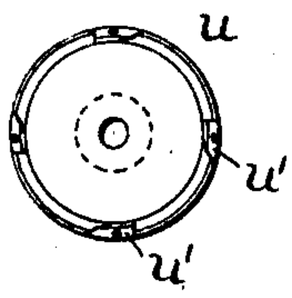


Fig. 4.

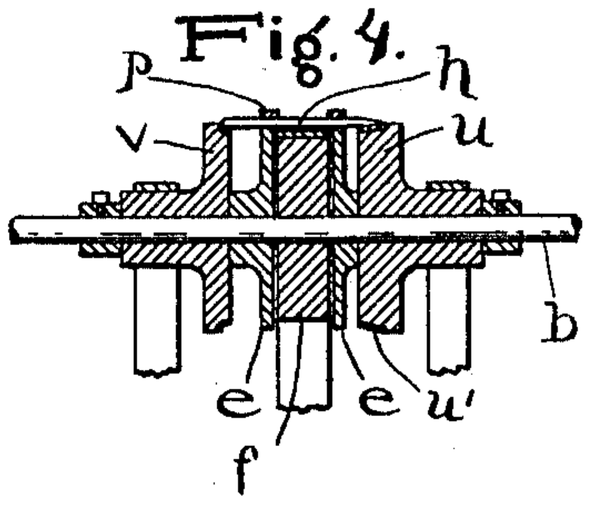
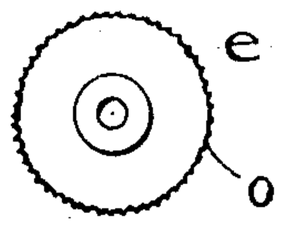


Fig. 6.



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his Attorneys

UNITED STATES PATENT OFFICE.

AMOS T. TRUE, OF STRONG, MAINE.

MACHINE FOR FINISHING SKEWERS.

970,667. Specification of Letters Patent. **Patented Sept. 20, 1910.**

Application filed December 29, 1909. Serial No. 535,475.

To all whom it may concern:

Be it known that I, AMOS T. TRUE, a citizen of the United States, resident of Strong, in the county of Franklin and State of Maine, have made a certain new and useful Invention in Machines for Finishing Skewers; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a front view of my skewer machine. Fig. 2 is a rear view of the same. Fig. 3 is a section on the line 3—3, Fig. 1. Fig. 4 is a detail sectional view on the line 4—4, Fig. 3. Fig. 5 is a detail side view of one of the cutter or sharpener wheels. Fig. 6 is a detail side view of one of the two rough surfaced wheels upon the countershaft.

The invention has relation to machines for finishing skewers, having for its object the provision of an improved machine which will sharpen the points of the skewers and round the butts thereof in a simple, efficient and expeditious manner.

Other objects and advantages will hereinafter appear.

The invention consists in the novel construction and combinations of parts as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter *a*, designates a supporting frame carrying at its upper portion a horizontal shaft *b*, having a driving connection *c*, with a countershaft *d*, at the lower portion of said frame.

Located about centrally of the driven shaft *b*, and fast thereupon, are two wheels *e*, *e*, preferably of metal, such as iron, and separated from each other by an interval in which is located a loose pulley *f*. Below these wheels and pulley at one side of the machine is the hopper *g*, for the blank skewers to be sharpened or finished. The loose pulley *f*, carries an endless belt *h*, passing around a loose pulley located below the hopper, said belt running upward from the central portion of the hopper and being provided with a series of transverse lagging strips *k*, *k*, preferably of steel, secured thereto, each strip being separated from its neighbor by an interval *l*, of such size as to receive therein a single skewer. The loose pulley *f*, is a little smaller in diameter than the wheels *e*, *e*, thus allowing the belt to drop a little below or within the surface of said wheels and the skewers to rest upon the wheels *e*, *e*.

The endless belt *h*, is caused to move upward from the hopper around the upper portion of the loose pulley *f*, by engagement of projecting end portions of the skewers, the central portions of which are located in the intervals between the steel lagging strips of the belt, with the roughened or file surfaced peripheral walls *o*, *o*, of the positively driven metal wheels *e*, *e*,—that is to say when the machine is started the skewer-carrying belt is caused to move by hand until the skewers are thereby raised into engagement with the roughened peripheral surfaces of the wheels *e*, *e*, when an operating connection will be established between the wheels *e*, *e*, and the skewer-carrying belt by engagement of the skewers with such wheels. These wheels *e*, *e*, being positively driven the operation thereafter of the skewer-carrying belt will be continuous and incidentally the skewer blanks will be effectually caused to turn in their seats in the belt by the stationary straps hereinafter described pressing the skewer blanks against such wheels. The pulley *f*, is about one third as wide as the skewer is long and said wheels are of such narrow width as to leave the point and butt portions of the skewers projecting therefrom at each side. The movement of the belt being started in the manner stated, the movement of the skewer blanks in the spaces between the lagging strips of the belt, upward from the hopper, will be controlled and governed as to speed by movement of the shaft *b*, and its wheels *e*, *e*. These stationary straps *p*, *p*, preferably of leather, are secured at one end thereof to a frame strip *r*, and pass upward over the wheels *e*, *e*, and down at the opposite side of the machine, where they are secured at their ends to a suspended strip *s*, a strong spiral spring *t*, having a bearing at its upper end against the frame at *t'*, pressing down against the suspended strip between the two straps and acting to exert a strong pressure thereupon. The tension of this spring may be adjusted as required by movement of the nut t^2, upon the rod t^3, which runs through the spring and the strip *s*.

The skewers are pointed by a cutter wheel

u, upon the shaft b, said cutter wheel having inclined knives u', u', (four as shown) which run within the projecting end portions of the skewers and gradually shape them to a long tapered point, being assisted or enabled to accomplish the desired result by the rotation of the skewers in their seats. The butt portions of the skewers are rounded by a cutter wheel v, also shown as upon the shaft b, and having a series of inclined knives suitably ground.

The carton or box to receive the finished skewers and in which they are packed for the market, is supported upon a table w, at the side of the machine opposite to the box containing the blank skewers to be sharpened, located in the recess beneath the inclined belt in position to receive the finished skewers as they fall from their seats therein, the belt being partly reversed owing to its inclination. This table is supported by a bell crank lever or angle arm w', and being capable of a horizontal vibratory movement, through engagement of an arm of said lever with a slot x' of an eccentric strap x, carried by an eccentric of the countershaft d. The finished skewers, which are automatically discharged from the belt into the packing box or carton, are thus caused to automatically settle compactly in the carton, saving time and dispensing with hand packing.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:

1. In a machine for finishing skewers, a hopper, a rotary shaft carrying a loose pulley, an endless skewer-carrying belt passing over said pulley, said belt forming the bottom of said hopper and having an endless series of transverse projections separated from each other by intervals, lateral wheels fast upon said shaft at each side of said loose pulley and provided with roughened peripheral surfaces, stationary flexible straps passing around said lateral wheels and having a tension device at one end thereof, and a sharpener wheel for the skewer points adjacent to one of said lateral wheels.

2. In a machine for finishing skewers, a hopper, a rotary driven shaft carrying a loose pulley, an endless inclined skewer-carrying belt passing over said pulley, said belt forming the bottom of said hopper and having an endless series of transverse projections separated from each other by intervals, said belt having engagement with a pulley located below said hopper, lateral wheels fast upon said shaft at each side of said loose pulley, and provided with roughened peripheral surfaces, stationary flexible straps passing around said lateral wheels and having a tension device at one end thereof, a sharpener wheel for the skewer points adjacent to one of said lateral wheels, a rounding cutter wheel for the skewer butts adjacent to the other of said lateral wheels, a vibratory table below said carrying belt and located in the recess beneath one inclined side thereof in position to receive the finished skewers as they fall from the carrying belt, and means for vibrating said table.

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

AMOS T. TRUE.

Witnesses:
JOS. C. HOLMAN,
CURRIER C. HOLMAN.