

S. KARNS.
Clover Huller.

No. 10,208.

Patented Nov. 8, 1853.

Fig. 1

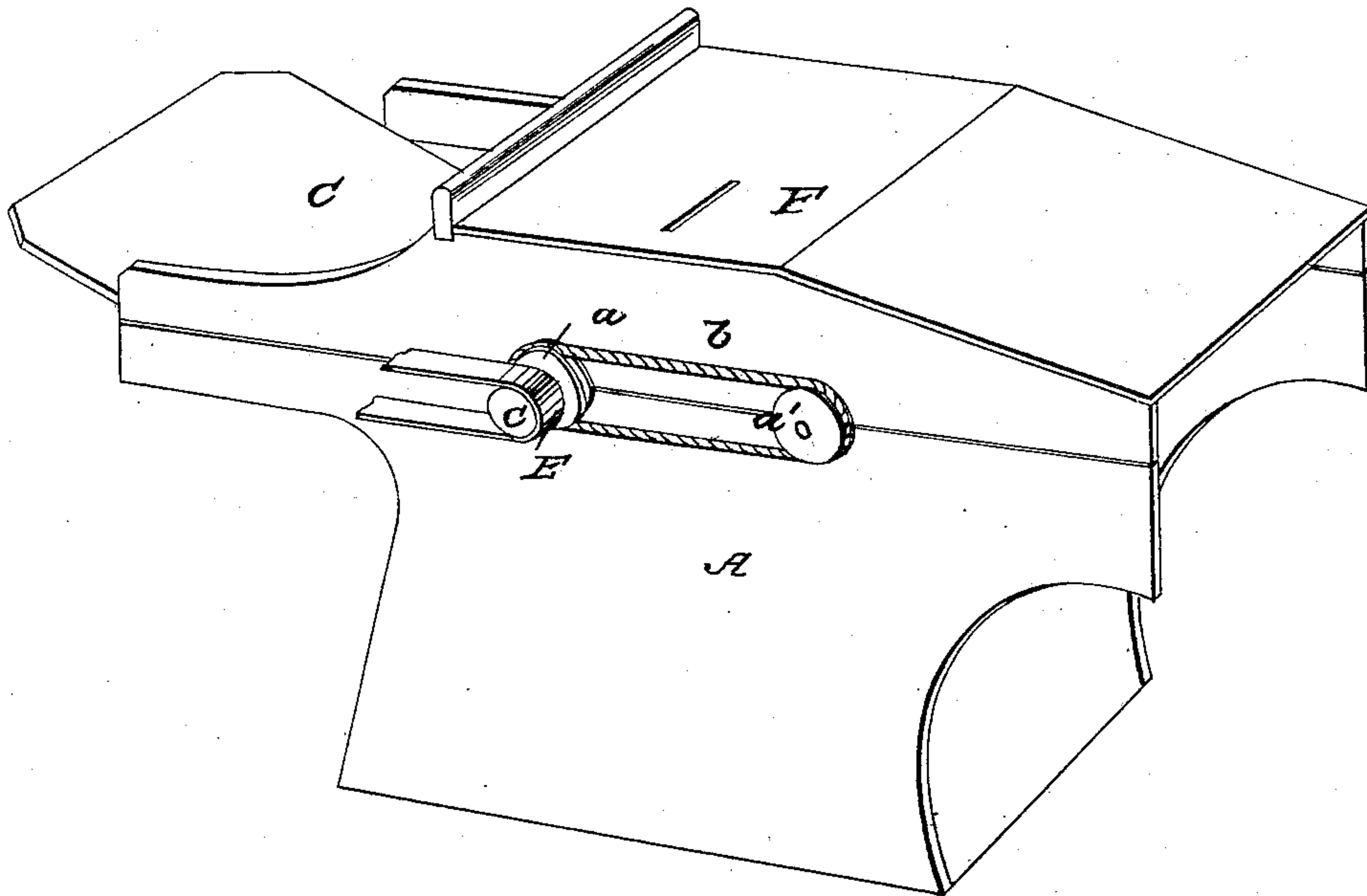
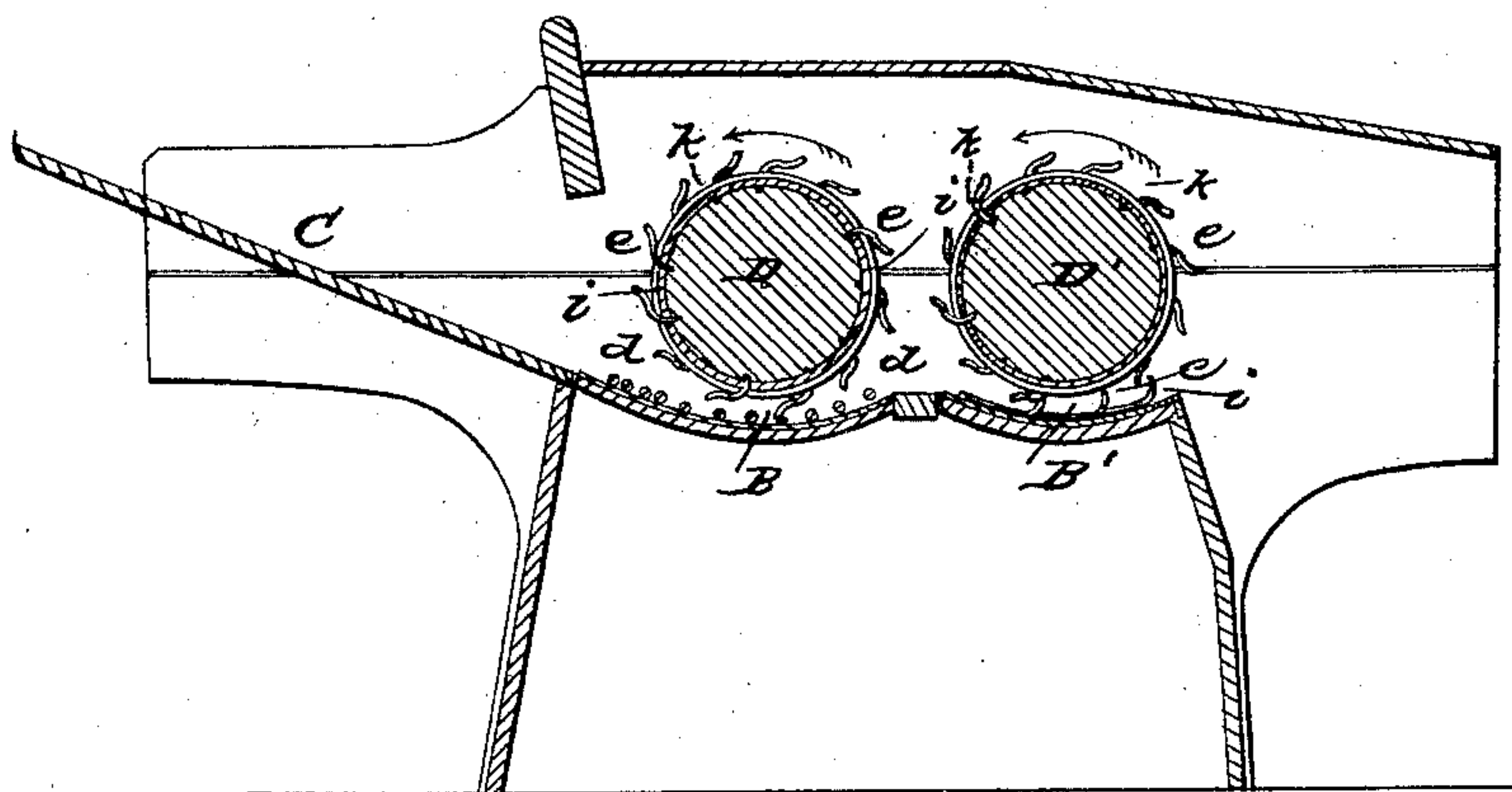


Fig. 2



UNITED STATES PATENT OFFICE.

SAML. KARNS, OF BLOODY RUN, PENNSYLVANIA.

FASTENING THE TEETH TO CLOVER-HULLING CYLINDERS.

Specification of Letters Patent No. 10,208, dated November 8, 1853.

To all whom it may concern:

Be it known that I, SAMUEL KARNS, of Bloody Run, in the county of Bedford and State of Pennsylvania, have invented a new and useful Improvement in Machines for Hulling Clover-Seed, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms part of this specification, and in which—

Figure 1 represents a view in perspective of my clover huller and Fig. 2 is a vertical longitudinal section of the same.

My invention consists in a new method of constructing the teeth of the concave and cylinders by forming them of wire and securing them to sheets of leather or other elastic substance which are made fast to the faces of the cylinder and concave; the teeth thus formed having the quality of elasticity which allows them to yield and pass any accidental obstruction that may occur when the machine is in operation, while the wearing away of the leather is retarded by incasing it with wire or thin bands of metal.

In the accompanying drawing A is the frame of the machine; it is composed of side and cross pieces and supports the two concaves B, B', which are preceded by an inclined feed board C. Immediately above each concave is a toothed cylinder D, D', the shafts of these cylinders are supported in brasses secured to the side pieces of the frame; each shaft is also fitted with a belt pulley *a a'*, which is encircled by a belt *b* that communicates motion from one to the other, and one shaft is fitted with a second belt pulley *c* to which motion is imparted by the prime mover through the intervention of a belt E. The whole machine is surmounted by a cap F which covers the cylinders and prevents the rising of dust. That concave (B) nearer the feedboard is furnished with teeth *d* formed of pieces of

wire which are parallel with each other and with the axis of the concave and are secured at their extremities in a sheet of leather or other elastic substance. The other concave B', and the two cylinders D, D', are each furnished with teeth *e* formed of pieces of wire one of whose extremities is made fast, by riveting or bending in a sheet of leather *i* or other elastic substance, while their other extremities are bent backward as represented in the drawing in the direction they would naturally tend to assume in drawing substances through the machine. The toothed sheet of leather for the concave is secured to it by tacks or screws those for the concave are conveniently secured to them by binding them with wire *h* which also protects the leather from abrasion.

The machine is put in motion by means of the driving belt E and the cylinders are caused to turn in the directions indicated by the arrows in Fig. 2. The clover is introduced upon the feed board C and being drawn in between the revolving cylinders and concave is delivered at the opposite extremity of the machine.

The mode herein described of constructing the teeth of clover hullers has the great advantages of simplicity and cheapness; while at the same time they possess the quality of elasticity which enables them to yield instead of breaking when any accidental obstruction is opposed to prevent the motion of the cylinders.

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

Binding of the teeth to the hulling cylinder by means of the wire band as set forth.

In testimony whereof I have hereunto subscribed my name.

SAMUEL KARNS.

Witnesses:

E. S. RENWICK,
P. A. WATSON.