(12) **United States Patent**
Adams

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(54) **COMBS, TEETH, CUTTING OF**

(76) Inventor: **Lemuel Adams**

Samuel Adams Reading Conn.
Letters Patent

The Schedule referred to in these Letters Patent and making part of the same Containing a description in the words of the said Samuel Adams himself, of his improvement in the art of Cutting Coat teeth

To all to whom these presents Shall Come—

Be it known that I Samuel Adams of Redding in the County of Fairfield and State of Connecticut have invented a new and useful improvement in the art of Cutting Coat teeth which Substitutes power for manual Labour and that the following is a full and exact description thereof. It Consists of a Shaft or axle of suitable length with bearings for it to revolve upon also a pully to revolve upon the axle the nave of which through which the axle passes is of sufficient length on one side to admit of Catches which are made Straight upon one side and Slanting upon the other side the Space between them Comes to a point at the bottom. the other end of said nave is of sufficient length to admit of a groove or Channel to be formed around it for a Cord to rest in and not interfere with the surface of the pully or the belt which runs upon the said pully There is also a Collar equal in diameter to the nave of the pully the said collar has Catches upon it to fit those upon the above described nave this Collar is made fast upon the aforesaid axle with keys; there is also a Shoulder around the axle a short distance from that part of the nave in which the channel is formed There is likewise a Cord one end of which is made to fit the channel in the nave of the pully: this Cord is fastened by a pin through it one third of its length distant from the end which is fitted to the Channel. The other end is united by a joint to a rod which unites in the same direction with the axle near the other end of the rod is also united by a joint to a Square of which one end is longer than the other, the rod is attached to the shorter end of the Square the said Square is placed upright directly under a hole that the Cutting machine Stands upon and is made fast to the beam at its angle corner by a hinge another rod is also attached by a joint to the longest end of the Square which rod extends upwards by the

opposite side of the bench and over it is placed a hand piece one end of which operates as a lever upon the first mentioned rod and the other end is fastened to the bench by a hinge under the hand piece between the hinge and the said rod is a strong wire spring directly over the hand piece is a thumb piece placed upright the bottom end projecting backwards sufficiently for the hand piece to rest under it. the said thumb piece is fastened by a pin through the center a spring is also placed behind the thumb piece below the pin The usefulness of the above described invention may be appreciated by understanding that the usual method of cutting comb-teeth is by manual labour to which by applying this invention to a crank comb-cutting machine the work is performed by power. The application may be made by uniting the foregoing described axle with the axle of the cutting machine by a coupler. Whilst the above mentioned hand piece rests under the thumb piece the catches upon the nave of the pully and those upon the collar are disunited and the pully revolves upon the axles between the shoulders and the collar. but by a slight pressure upon the thumb piece the hand piece is forced upwards by the spring which is under it. whilst the same unites the catches upon the revolving pully with those upon the collar and the work is carried with the pully likewise by a slight pressure upon the hand piece it is forced under the thumb piece which again disunites the catches and the work instantly ceases but the pully continues to revolve

Witness
Gresham Hill
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Ford.
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