

The Schedule referred to in these Letters patent, and making part of the same, containing  
 a Description in the words of the said Jacob Perkins himself of an improvement in the  
 mode of manufacturing Nails &c. A short and general description of Jacob Perkins's  
 Invention. I have invented and discovered a mode of making Nails by which much manual  
 labor may be saved by means of an Off-set, or revolutionary cutting Engine, and a  
 Vulcan or heading Engine. The principle of the cutting Engine is that of a revolutionary motion  
 i.e. a roller with 7 cutters fixed in it to the circumference of the roller, which passing by another  
 die in a standard or plate, cuts or presses off wire, which may be placed between either of the dies on the  
 roller, and the die in the plate, directly above which is an aperture or slit, sufficient for a piece of flat  
 iron to pass thro' the roller being turned in a skew shape the exceedingly true, acts always a guide  
 to the shearing plate, and brings it in that direction with each die in the roller, so as to cut up the  
 whole strip of iron without any manual assistance, after it is once put in the aperture of the  
 shearing plate. The heading Engine is worked by the revolution of a tappet wheel, having three tappets  
 each of which lifts up a hammer, which gives three strokes each revolution of the wheel, on the anvil  
 which is fixed in a vice directly under the hammer, the three strokes forming the head of the nail;  
 there is also affixed to the tappet wheel, a piece in a curved form, which catching the tail of a nail  
 forces the jaws of the vice together to hold the nail sufficiently firm for the purpose of heading  
 it. When the curved piece ceases to operate on the vice-lever, a spring pulls open the vice-lever  
 which turns, and the tappets again reaching the tail of the lever, another nail is put in, the head  
 nail dropping down immediately on the jaws of the vice opening. It is to be observed one  
 cutting Engine may with ease be drove by Water 250 revolutions in a minute each revolution  
 produces 2 Nails & one Boy often or twelve years of age can with ease supply six Engines  
 so that the labor of one Boy can cut three thousand Nails per minute, the heading  
 Engine will head only Nails per minute, by the assistance of one Boy, or more if it is  
 possible for the Boy to hand them. A more particular description of these Engines  
 is given in the Specification accompanied with drawings and written references  
 pursuant to the said Jacob Perkins do now & do certify that this Schedule  
 contains a short and general description of my invention as specified in the petition by  
 me presented to the Secretary of State praying that letters patent may issue for  
 the same according to law.

Jacob Perkins

Witnesses  
 Saml Coates }  
 Edw Shoemaker }