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Splitting Hides and Skins.

PARR AND R. & S. BEVINGTON'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, we, WILLIAM PARR, of Bermondsey New Road, in the County of Surry, Gentleman, RICHARD BEVINGTON, of Gracechurch Street, in the City of London, Merchant, and Samuel Bevington, of Grange Road, Bermondsey, in the said County of 5 Surrey, Leather Dresser, send greeting.

WHEREAS His most Excellent Majesty King George the Third, by His Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Twenty-sixth day of March, in the forty-sixth year of His reign, did give and grant unto us, the said William Parr, Richard Bovington, 10 and Samuel Bevington, our executors, administrators, and assigns, His special licence, full power, sole privilege and authority, that we, the said William Parr, Richard Bevington, and Samuel Bevington, our executors, administrators, and assigns, during the term of fourteen years therein expressed, should and lawfully might make, use, exercise, and vend our Invention therein mentioned 15 and referred to, that is to say, "A MACHINE FOR SPLITTING HIDES, SKINS, PELTS. OR LEATHER, IN AN IMPROVED MANNER," within that part of the United Kingdom of Great Britain and Ireland called England, the Dominion of Wales, and Town of Berwick-upon-Tweed, in such manner as to us, the said William Parr, Richard Bevington, and Samuel Bevington, our executors, administrators, 20 or assigns, or to any of them, should seem meet, to have, hold, exercise, and enjoy the said licence, powers, privileges, and advantages, therein granted unto us, the said William Parr, Richard Bevington, and Samuel Bevington, our executors. administrators, and assigns, for and during and unto the full end and term of

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fourteen years from the date of the said Letters Patent next and immediately ensuing, and fully to be complete and ended, according to the Statute in such case made and provided; in which said Letters Patent there is, amongst other things, contained a proviso that if we, the said William Parr, Richard Bevington, and Samuel Bevington, or one of us, should not particularly 5 describe and ascertain the nature of our said Invention, and in what manner the same is to be performed, by an instrument in writing under our hands and seals, or under the hand and seal of one of us, and cause the same to be inrolled in the High Court of Chancery within four calendar months next and immediately after the date of the said Letters Patent, that then the said 10 Letters Patent, and all all liberties and advantages whatsoever thereby granted, should utterly cease, determine, and become void, as in and by the said recited Letters Patent, reference being thereunto had, will more fully appear.

NOW KNOW YE, that in compliance with the said proviso, we, the said 15 William Parr, Richard Bevington, and Samuel Bevington, do hereby declare that our said Invention is described in manner following, that is to say:—

We do construct our machine by means of two parallel cylinders, one above the other, driven by wheelwork or other suitable machinery, and with such an adjustment of their distance from each other as to permit a skin to pass 20 and be carried fairly through the interval between them, with a considerable holding or compression of the same, and at the same time we do present a long knife with a straight edge to the skin in the direction of its thickness, and in the very angle between the two cylinders, so as to meet the said skin and all its parts as it comes forth, and thereby to slit or divide the same into 25 two pieces in the same manner as a card or other laminated substance might be divided by the separation of the leaves or plates of which such card or laminated substance might be composed; and we do place and secure our said knife in the proper situation, so that its edge shall be duly disposed in the angle between the said cylinders, by means of supporters above, beneath, 30 and on each side of the same, so as to admit of and to guide a motion of the said knife backwards and forwards, in the direction or line of its own edge, in order to facilitate the cutting; and the said supporters are so made as to be exactly adjustable in their respective situations by means of screws or otherwise, and at the places of motion the said supporters may (if thought 35 needful) be made to terminate in rollers, in order to diminish the friction; or otherwise we do support the said knife upon or by means of any of the well-known sliders, or ares, or jointed gear, or other apparatus, which are used in engines, where a right lined or (as it is called) parallel motion .

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is required to be produced and maintained. And, moreover, we do cause the said back and forward motion to be produced in or communicated to our said knife by means of crank work, or snail work, or wheels acting on each other, or by any of the very numerous ways by which a back and forward motion 5 is commonly produced from a motion which is circular or direct. And in order that the holding or compression of the skin between the said two cylinders shall not be subject to any sensible variation in its effect upon those several parts of the skin which may differ from each other in thickness, we do construct our upper cylinder of a great number of circular plates 10 or pieces, about one quarter of an inch thick (more or less), and each plate has a central hole, and when an axis is passed through the said hole, the whole number of pieces will form a cylinder; but in order that the cylinder so formed may yield and give way in its several parts to the thicker parts of the skin, and may bear down upon the skin by a contrary deviation at 15 the places or parts where the said skin is or may be thinner, we do make the said central hole somewhat larger in diameter than the axis; and further, in order that all the parts of the said compound cylinder may be equally carried round by the rotatory motion of the axis, we do make an eccentric hole, alike situated in every part of the pieces, 20 and do fasten or secure two end pieces or plates upon the said axis so that the said end pieces shall necessarily revolve along with the same; and in each of the said end pieces we make an eccentric hole corresponding with the holes of the intermediate plate, and do pass a rod or bar through all the holes, which said rod, being carried round along with the end pieces, will 25 necessarily carry all the other pieces along with it; and because the said rod is made smaller than the holes through which it passes, and the intermediate plates are not closely held but are allowed a little play between the end pieces, all the working parts of the said upper cylinder will be at liberty to accommodate themselves to the irregularities of the skin in its thickness, and the 30 pressure, being produced by the respective weights of the said plates or pieces, will continue in all circumstances so nearly the same as to prevent any irregularity from taking place in the work; and that portion of the skin after slitting which was in contact with the lower cylinder, and is usually the grain side, will come out nearly uniform in its thickness; and in order that the skin-35 may be carried through and slit, notwithstanding the opposition of the knife, the edges or faces of the parts composing the upper cylinder, and if need be the face of the lower cylinder, may be cross grooved or finely jagged, with a punching tool, or made rough by any other suitable means.

And we do hereby farther declare, that although the general description

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therein-before contained will sufficiently make known our said Invention, and the manner of carrying the same into effect, we have nevertheless thought it our duty further to clucidate the same by a Drawing in the margin hereof of one of the engines or machines actually constructed and used by us.

In Figure 1, A represents the square end of an axis, to which the first 5 mover is applied, which first mover may be derived from the strength of animals, the fall of water, the operation of steam, or any other natural power. The said axis drives a train of wheels, the last of which, B, carries round C, D, the axis of the upper cylinder, and another equal wheel driving B, carries round the lower cylinder E. The upper cylinder F, F, is composed 10 of circular plates, and the form of one of these plates is shown in Figure 2. H, H, represents a mettallic bar, which holds a supporter I, the lower thin part of which passes down between the plates and gives support beneath to the axis, which might otherwise be bended by the weight of the plates. G is the end of a rod or bar which passes through the eccentric holes of the 15 plates, but proceeds no farther than the plate on the same side of the piece I; at which place it is received and supported by a stud or projection from the axis, which carries that inner end round in the same manner as a secured end plate would have done. A similar rod-is passed through the other half of the cylinder, towards D, and secured in like manner by a stud on the same 20 side of I, towards D. K is a contrate wheel, a pinion on the axis of which is in the direct train from A to B, the wheel merely communicating with a pinion which carries an eccentric piece or snail L, L. M, M, represents a strong bar, which affords support to the knife N, N, N, N, N, indicate the supporters of the knife which is not represented in the machine, but is supposed to be 25 taken out and shown at O, O, P. At one end of the knife Q, Q, there is a branched piece having a roller at each extremity of its curve, and when the knife is in its place the eccentric piece L, L, occupies the space between Q, Q, and by its action against them alternately (as it moves round) the knife itself is drawn backwards and forwards through a short space in the line O, O, 30 or the edge, which when in work lies in the angle between the cylinders. The number of alternations of the knife, during the passing of the skin through a given space, and the length of stroke, admits of considerable variation without injuring the process. The work will go on very well when the apparatus is so proportioned that the knife may give nine or ten strokes of 35 about two inches each while the skin passes through one inch. represents that part of the skin which has not yet arrived at the cylinders. S, S, S, S, S, S, represent a part which has been slit.

Lastly, we do declare, that the said engine may be made of such materials

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as the judgment of any workman skilled in engine making may direct, but that we have given the preference to copper and brass in such parts of the engine as are like to come in contact with a wet skin, and have avoided iron because more likely to produce marks or stains upon the skins.

In witness whereof, we, the said William Parr, Richard Bevington, and Samuel Bevington, have hereunted set our hands and seals, the Fourteenth day of July, in the year of our Lord One thousand eight hundred and six.

WILL^M (L.S.) PARR, RICHARD (L.S.) BEVINGTON, SAMUEL (L.S.) BEVINGTON.

Signed, scaled, and delivered, in the presence of

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Edw^d Churcu, Geo. Ball,

Clerks to Mr. Ro. Eaton, Solr, Birchin Lane.

AND BE IT REMEMBERED, that on the same Fourteenth day of July, in the year above mentioned, the aforesaid William Parr, Richard Bevington, and Samuel Bevington, came before our Lord the King in His Chancery, 20 and acknowledged the Specification aforesaid, and all and every thing therein contained, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute in that case made and provided.

Inrolled the Sixteenth day of July, in the year above written.

LONDON:

Printed by George Edward Eyre and William Spottiswoode, Printers to the Queen's most Excellent Majesty. 1856. SAM. C. Cox

