

then to separate the dirty acid, and treat it with alkalis, when a substance is deposited which forms a brown pigment. The oil is then placed in a retort, with certain proportions of oxide of iron, and carbonate of potash, and the whole is distilled over until perfectly dry, the product being refined bone oil, and the residuum left ferrocyanide of potash, and may be used as such or converted into Prussian blue.

2490. W. ROWAN. *Improvements in cylinders or drums and beaters for machines for scutching and preparing flax and other fibres.* Dated Oct. 5, 1861.

Hitherto the cylinders or drums employed in the scutching and preparing of flax and other fibres have been rigid, and consequently, the combs, beaters, pins, or teeth fixed thereto or thereon, have been rigid also, and have therefore, acted more or less injuriously on the fibres. Now by this present invention this defect is remedied, and the invention consists in forming the cylinders or drums in segments, and in making one end of each segment fast to the frames, while play is allowed to the other end limited by stop pins or otherwise; the free ends of the segments or those to which play is allowed, carry the combs and beaters or other tools or apparatuses intended to act on the fibres. The rapid rotary motion imparted to the drum causes the combs, beaters, or other apparatuses to be thrown by centrifugal force with a spring-like action into and amongst the fibres. (See *Journal for February*.)

2497. W. SQUIRE. *Improved machinery for planing and shaping wood.* Dated Oct. 5 1861.

Here the patentee planes the opposite faces of planks, &c., simultaneously, and thereby ensures perfect parallelism, by the use of a combination of machinery, wherein a pair of cutters, rotating in vertical planes, and capable of receiving a nice adjustment, operates simultaneously upon opposite sides of the work, which work is fixed in and carried forward by a travelling carriage. This carriage is so constructed as to hold securely either a single plank or block, and present the vertical sides to the cutters, or a pile of planks may be so packed therein as to present their edges to the cutters. By a slight modification, the machinery may be made to plane inclined faces, or by a change of cutters the machine may be adapted to cut mouldings.

2534. B. BROWNE. *A new improved spring.* (A communication.) Dated Oct. 10, 1861.

This consists of combination of steel blades or strips of tempered steel, bent in different curves or directions, the said blades being connected together at their extremities, so as to act one upon the other, so that when in use the end portions of the blades pressing upon each other stiffens the springs, and thus adapts them to the load or pressure they are required to bear or carry.

2562. F. B. HOUGHTON. *Improvements in apparatus employed in reducing straw and other vegetable substances in the manufacture of pulp for making paper.* Dated Oct. 14, 1861.

Here the patentee employs a boiler of a cylindrical form with hemispherical ends, and within this boiler a shaft or axis works, passing through a stuffing

box at one or both ends. On this shaft are fixed several bent or curved blades, the edges of which are bent up so as to form scoops; these blades are fixed at intervals all round the shaft, and they are of a length to come within a few inches of the inner surface of the boiler. To this shaft rotatory motion is communicated, by which the materials under operation are continuously moved and raised out of the alkaline solution in the lower part of the boiler, which is about one-third filled with that fluid. The boiler is heated from the interior by water circulated in closed pipes or tubes, on Perkins' principle. When the boiler and the materials therein are to be cooled, water is pumped into the boiler.

2574. T. FORSTER. *Improvements in re-working waste vulcanized india-rubber.* Dated Oct. 16, 1861.

Here the vulcanized india-rubber is suitably reduced by crushing rollers, or otherwise, and is then mixed with gutta-percha and sulphur. Pigments may be added to the mixture of vulcanized india-rubber, gutta-percha, and sulphur, if desired.

RESULT OF THE PRESENT CONDITION OF OUR PATENT LAWS.

Board of Arts and Manufactures for U. C.,
TORONTO, May 13, 1862.

SIR,—I have frequent applications made to me, as to whether Canadians can now obtain Patents in the United States, and on what terms. My impression has been that they cannot, since the passing of the Act of May, 1861; will you be kind enough to inform me if I am correct; or, whether Canadians can still obtain Patents in the United States by paying the sum, formerly paid, of five hundred dollars.

I am, Sir, your obedient servant,

W. EDWARDS, *Secretary.*

The Hon. the Commissioner of Patents,
U. S.

U. S. Patent Office,
WASHINGTON, May 20th, 1862.

SIR,—In reply to your communication of the 13th instant, I have the honor to inform you, that as Canada discriminates in her patent laws against citizens of the United States, Canadian subjects are not entitled to the benefits of the tenth section of the Act of March 2nd, 1861, herewith enclosed.* Canadians can obtain patents only on payment of the fee required under the old law of all British subjects, viz., \$500 on each application.

I am, Sir, respectfully your obedient servant,

D. P. HOLLOWAY, *Commissioner.*

W. EDWARDS,
Secretary of Board of Arts and Manufactures,
Toronto, Canada.

* See "Proceedings of the Sub-Committee," page 133.