

the invention of "improvements in the construction of vacuum pans, and in the construction of and mode of driving vacuum pumps to be employed therewith, parts of which improvements are also applicable to other pumps."

4397. To William Wright, of Looe-street, Plymouth, in the county of Devon, Brassfounder and Engineer, for the invention of "improvements in roller skates."

4399. To William Shaw the younger, of Wolsingham, in the county of Durham, Manager of Steel Works, and William Hutchinson, of Tudhoe Iron Works, Spennymoor, in the county of Durham, Manager of Iron Works, for the invention of "improvements in the manufacture of cast, forged, and rolled steel."

4401. To James Steel, of Glasgow, in the county of Lanark, North Britain, for the invention of "improvements in charging and drawing retorts, and in the machinery or apparatus employed therefor, also in the means of opening and closing retorts."

4103. And to Richard Quin, of Poland-street, Oxford-street, in the county of Middlesex, trading under the style or firm of Moran and Quin, Jewellery Case Makers, for the invention of "improved opening and closing arrangements applicable to cases for containing jewellery, plate, papers, pictures, and other articles."

On their several petitions, recorded in the Office of the Commissioners on the 18th day of December, 1875.

4409. To Frederick Arthur Cowell, of Gunnislake, Calstock, in the county of Cornwall, Engineer, for the invention of "improved non-porous and vitrified blocks, bricks, and other articles for various purposes."

4411. To James Gregson Chapman, of the firm of Fawcett, Preston, and Company, of Liverpool, in the county of Lancaster, and 25, Austin Friars, in the city of London, Engineers, for the invention of "improvements in sugar cane mills."

4413. To Edward Benjamin Lamb, of Manchester, in the county of Lancaster, Engineer, for the invention of "improvements in roller skates."

4115. And to John Henry Johnson, of 47, Lincoln's-inn-fields, in the county of Middlesex, Gentleman, for the invention of "improvements in or connected with rotating puddling vessels."—A communication to him from abroad by William Sellers and John Sellers the younger, both of Philadelphia, United States of America.

On their several petitions, recorded in the Office of the Commissioners on the 20th day of December, 1875.

#### PATENTS WHICH HAVE BECOME VOID.

**A** LIST of the Letters Patent for Inventions which have become void by reason of the non-payment of the additional Stamp Duty of £50, before the expiration of the third year from the date of such Patents, pursuant to the Act of the 16th Vic., c. 5; sec. 2, for the week ending the 25th day of December, 1875.

3852. Arthur Charles Henderson, of the firm of Henderson and Company, British and Foreign Patent Agents, of 31, Charing Cross, in the county of Middlesex, for an invention of "improvements in apparatus for filtering and defecating water by radiation, in the mode of cleansing the said apparatus and in its several applications."—Has been communicated to him

from abroad by Gustave Demailly, Civil Engineer, of the city of Brussels, and Kingdom of Belgium.—Dated 19th December, 1872.

3853. Frederick Burnett Houghton, of No. 40, Borough-road, in the borough of Southwark, and county of Surrey, for an invention of "improved method of or process for treating spent hops for the manufacture of paper pulp."—Dated 19th December, 1872.

3854. Nathan Ager, of No. 28, Grosvenor-road, Pimlico, in the county of Middlesex, for an invention of "improvements in sashes and frames, and in apparatus for facilitating the cleaning, painting, and repairs of windows and sashes."—Dated 19th December, 1872.

3855. Edward Whitehall, of Thorneywood-lane, near Nottingham, in the county of Nottingham, Machinist, for an invention of "improvements in apparatus for uniting parts of looped fabrics."—Dated 19th December, 1872.

3859. Richard Hobbs Taunton, of Birmingham, in the county of Warwick, Manufacturer, for an invention of "an improved joint for connecting the heads and caps of tubulous boilers."—Dated 19th December, 1872.

3861. Charles Henry Sidebotham, of the borough of Salford, in the county of Lancaster, for an invention of "improved arrangements and constructions of school desks and seats, and also of the standards for supporting them."—Dated 20th December, 1872.

3866. Thomas Kennelly, of Birmingham, in the county of Warwick, Gas Fitter, for an invention of "improvements in blow pipes used in soldering and brazing metals, and for other purposes."—Dated 20th December, 1872.

3867. James Christopher Kennedy, of West House, Elgin, North Britain, for an invention of "improved rescue apparatus, to be used in ice accidents."—Dated 20th December, 1872.

3869. Henry Percy Holt, of Royal Insurance-buildings, Leeds, in the county of York, Civil and Consulting Engineer, for an invention of "improvements in locomotive engines to be used either on a permanent way or on common roads, and adapted for use also in mines or other underground works."—Dated 20th December, 1872.

3871. Thomas Penn, of Westbury-street, Wandsworth-road, in the county of Surrey, Engineer, for an invention of "improvements in apparatus to be applied to water closet and other cocks, which apparatus is also applicable as a self-acting releaser for pile driving machinery, and other purposes."—Dated 20th December, 1872.

3873. William Morgan-Brown, of the firm of Brandon and Morgan-Brown, Engineers and Patent Agents, of 38, Southampton-buildings, London, and 13, Rue Gaillon, Paris, for an invention of "improvements in railways."—Communicated to him from abroad by Etienne Boisson, of Paris, France, Architect.—Dated 20th December, 1872.

3875. Bernard Coone, of the York Hotel, York-road, Waterloo-road, Lambeth, in the county of Surrey, Merchant, for an invention of "improvements in machinery for filling moulds with moist and soft clay and other plastic materials."—The said invention has been communicated to him from abroad by Gideon H. Houghton, of Marlin, in the State of Texas, in the United States of America.—Dated 21st December, 1872.

3882. William White Fereday, of No. 5, Falmouth-road, Dover-road, in the county of Surrey, Civil Engineer, for an invention of "improvements in treating human excreta, and