the 31st day of December, 1874, and a complete specification accompanying such petition was at the same time filed in the said office.

Patent Law Amendment Act, 1852. Office of the Commissioners of Patents for 4491. Inventions.

NOTICE is hereby given, that the petition of Alexander Melville Clark, of 53, Chancerylane, in the county of Middlesex, Patent Agent, praying for letters patent for the invention of improvements in surgical instruments known as litholycites,"—a communication to him from abroad by Henry Wittington Bradford, of Randolph, in the county of Norfolk, and State of Massachusetts, United States of America, -was deposited and recorded in the Office of the Commissioners on the 31st day of December, 1874, and a complete specification accompanying such petition was at the same time filed in the said office.

Patent Law Amendment Act, 1852.

Office of the Commissioners of Patents for 2. Inventions.

OTICE is hereby given, that the petition of Henri Adrien Bonneville, of the British and Foreign Patent Offices, 18, Rue de la Chaussée d'Antin, Paris, France, and 6, Piccadilly, in the county of Middlesex, Patent Agent, praying for letters patent for the invention of "improvements in machines for carding, combing, and spinning wool and other fibrous materials in general,"—a communication from Celestin Martin, a person resident at Verviers, in the Kingdom of Belgium, - was deposited and recorded in the Office of the Commissioners on the 1st day of January, 1875, and a complete specification accompanying such petition was at the same time filed in the said office.

Patent Law Amendment Act, 1852.

Office of the Commissioners of Patents for 24. Inventions.

OTICE is hereby given, that the petition of William Reynolds Miller, of the city of Baltimore, in the county of Baltimore, State of Maryland, United States of America, praying for letters patent for the invention of "improvements in pianos and similar musical instruments, deposited and recorded in the Office of the Commissioners on the 2nd day of January, 1875, and a complete specification accompanying such petition was at the same time filed in the said office.

Patent Law Amendment Act, 1852.

Office of the Commissioners of Patents for 27. Inventions.

NOTICE is hereby given, that the petition of George Haseltine, of the "Internationa Patent Office," Southampton-buildings, London, Doctor of Laws, praying for letters patent for the invention of "improvements in apparatus for teaching in schools,"—a communication to him from abroad by Malcolm McVicar, of Potsdam, New York, United States of America, and Donald Harvey McVicar, of Montreal, Canada, - was deposited and recorded in the Office of the Commissioners on the 2nd day of January, 1875, and a complete specification accompanying such petition was at the same time filed in the said office.

Patent Law Amendment Act, 1852.

Office of the Commissioners of Patents for Inventions.

OTICE is hereby given, that provisional protection has been allowed-

3593. To John Redgrave and Stephen Redgrave, both of Birmingham, in the county of Warwick, for the invention of "an improved coupler for railway carriages."—A communication to them from abroad by John Dix Mills, of Alexandria, Virginia, United States of America.

On their petition, recorded in the Office of the Commissioners on the 19th day of October, 1874.

3855. To William Froggatt and John Ballard, both of the town and county of the town of Nottingham, for the "improvements in internal stud stoppers for aerated water bottles."

On their petition, recorded in the Office of the Commissioners on the 9th day of November, 1874.

4201. To William Henry Thompson, of Islington, in the county of Middlesex, Engineer, and Nathan Gold Kimberley, of the city of London, for the invention of "new means and mechanism for indicating and recording the action of steering apparatus."

On their petition, recorded in the Office of the Commissioners on the 7th day of December,

1874.

4229. To Richard Wilkinson, of Saltaire, in the county of York, Millwright, for the invention of "improvements in coupling railway carriages and trucks."

On his petition, recorded in the Office of the Commissioners on the 9th day of December,

4311. To Frederick Dale Banister, of Denmarkhill, in the county of Surrey, Civil Engineer, and William Stroudley, of Dyke-road, Brighton, in the county of Sussex, Locomotive Engineer, for the invention of "an improved mode or method of, and means for, signalling the drivers, firemen, and guards of railway trains."

4319. And to Angelo Cipriano Baronio, of 19, Salisbury-street, Strand, London, W.C., Merchant, for the invention of "improvements in

postal sample-bags and envelopes.

On both their petitions, recorded in the Office of the Commissioners on the 15th day of December, 1874.

4329. To Alexander Carnegie Kirk, Engineer, of Glasgow, in the county of Lanark, North Britain, and George Thomas Beilby, Chemist, of Mid-Calder, in the county of Mid-Lothian, North Britain, for the invention of "improved means for producing cold."

On their petition, recorded in the Office of the Commissioners on the 16th day of December, 1874.

4357. To Edward James Greey, of Halstead, in the county of Essex, Civil Engineer, for the invention of "improvements in mechanism applicable to the construction of gas, steam, or water engines and pumps.'

On his petition, recorded in the Office of the Commissioners on the 17th day of December, 1874.

376. To Henry Mercer Girdwood, of Belfast, in the county of Antrim, in Ireland, Spinner, for the invention of "improvements in spinning machinery."

On his petition, recorded in the Office of the Commissioners on the 19th day of December, 1874.

4392. To Francis Daniel Brodhead, of Boston, in the county of Suffolk, and State of Massachusetts, in the United States of America, for the invention of "an improved sectional can."