Patent Law Amendment Act, 1852.

Office of the Commissioners of Patents for 2397.

Inventions.

OTICE is hereby given, that the petition of Ezekiel Williams Bullard, of the State of Massachusetts, of the United States of America, praying for letters patent for the invention of "a new and useful machine or carriage for turning and spreading hay, and for other useful agricultural purposes," was deposited and recorded in the Office of the Commissioners on the 30th day of September, 1863, 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 2401. Inventions.

James Mackay, of Aigburth, in the county of Lancaster, praying for letters patent for the invention of "certain improvements in fire arms, ordnance, and projectiles," was deposited and recorded in the Office of the Commissioners on the 1st day of October, 1863, 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.

NOTICE is hereby given, that provisional protection has been allowed

1950. To Frederick George Mulholland, of No. 36, Essex-street, Strand, in the county of Middlesex, Engineer, for the invention of "improvements in pipe castings for gas, water, sanitary, and other general purposes, and the introduction of an elastic chemical compound to form expansive joints thereto, for prevention of leakage."

On his petition, recorded in the Office of the Commissioners on the 7th day of August, 1863.

2103. To James Thomas, Mechanic, and William Fielding Marshall, Reed Maker, both of Shipley, in the West Riding of the county of York, for the invention of "improvements in apparatus for spinning."

On their petition, recorded in the Office of the Commissioners on the 26th day of August, 1863.

2152. To Alfred Vincent Newton, of the Office for Patents, 66. Chancery-lane, in the county of Middlesex, Mechanical Draughtsman, for the invention of "improved machinery for sawing irregular forms of wood."—A communication to him from abroad by Henry Vrooman, of New York, in the United States of America.

On his petition, recorded in the Office of the Commissioners on the 31st day of August, 1863.

2285. To John Gottlieb Ulrich, of No. 47, Wellclose-square, in the county of Middlesex, Chronometer Maker, for the invention of "improvements in apparatus applied to railway carriages and trains, in order to obtain greater safety to passengers."

On his petition, recorded in the Office of the Commissioners on the 17th day of September, 1863.

2314. To Ignazio de Angelis, of Naples, in the Kingdom of Italy, Captain in the Army, at present residing at 51, Greek-street, Soho, in the county of Middlesex, for the invention of "an improved apparatus for obtaining motive power."—A communication to him from abroad

by the Inventor, Federico Salomone, of Chieti, in Abruzzi, in the Kingdom of Italy.

On his petition, recorded in the Office of the Commissioners on the 19th day of September, 1863.

2329. To Charles Thomas Burgess, of No. 3, Upper Gower-street, in the county of Middlesex, for the invention of "improvements in reaping machines."

On his petition, recorded in the Office of the Commissioners on the 21st day of September, 1863.

2338. To Richard Archibald Brooman, of 166, Fleet-street, in the city of London, Patent Agent, for the invention of "certain compositions for preserving cheese."—A communication to him from abroad by Jean Neuenschwander, of Paris, France.

On his petition, recorded in the Office of the Commissioners on the 22nd day of September, 1863.

2350. To Adolphe Ernest Ragon, of Carolinestreet, Bedford-square, in the county of Middlesex, for the invention of "improved machinery or apparatus for stirring or mixing various ingredients or materials to a pasty consistence, said machinery being especially adapted to the manufacture of bread and other articles of food."—A communication to him from abroad by Charles Constant Simonet de Changy, of Arras, in the French Empire.

2351. To William Woofe, of the city of Gloucester, Agriculturalist, for the invention of "improvements in implements for tilling the soil, and in means of drawing ploughs and other implements for tilling through the land."

2352. To Thomas Marshall, of No. 12, Gatestreet, Liucoln's-inn-fields, in the county of Middlesex. Commercial Clerk, and William Marshall of No. 200, Regent-street, in the same county, Gentleman, for the invention of "metallic instruments to be used as substitutes for bristles in sewing, stitching, closing, and otherwise joining boots, shoes, and other leather work"

2353. To Ernest Dronke, of Oldhall-street, in Liverpool, in the county of Lancaster, Merchant, and Agent to the Huelva Mining Company, for the invention of "an improved mode of manufacturing gunpowder, suitable for war, mining, and general purposes."—A communication to him from abroad by Edward Schultze, of Potsdam, in the Kingdom of Prussia, a Captain in the Prussian Royal Artillery, that he is the true and first inventor thereof.

2354. To William George Helsby, of Liverpeol, in the county of Lancaster, Photographic Artist, for the invention of "improvements in mounting or setting transparent photographic

pictures."
2355. To Amos Firth, of Bradford, in the county
of York, Wheelwright and Blacksmith, for the
invention of "improvements in furnaces for
heating wheel hoops, applicable also for other

similar purposes."
2356. To James Webster, of Lee-crescent, Birmingham, in the county of Warwick, Engineer, for the invention of "improvements in utilizing the waste flux from galvanizing works."

2357. To John Sturgeon, of Lecds, in the county of York, Consulting Engineer, for the invention of "improvements in machinery for cutting and boring coal and rocks."

No. 22778.