ments in the construction of tank filters, and in the conversion of tanks into filters."

As set forth in their respective petitions, all recorded in the said office on the 30th day of November, 1869.

3472. And William Spence, of 8, Quality-court, Chancery-lane, in the county of Middlesex, Patent Agent, has given the like notice in respect of the invention of "improvements in the manufacture of soda crystals"-A. communication to him from abroad by Messrs. Perret Brothers and Olivier, of Paris, in the Empire of France, Manufacturers.

As set forth in his petition, recorded in the said office on the 1st day of December, 1869.

3494. And Pierre Adolphe Sidney Langlois, late Manufacturer of Chemical Products, and Léon Stanislas Thomassin, Industrial Chemist, both of 13, Boulevard St. Martin, Paris, have given the like notice in respect of the invention of "improvements in the manufacture of sulphuric acid, and in apparatus connected therewith."

As set forth in their petition, recorded in the said office on the 2nd day of December, 1869.

3510. And Henry Martyn Nicholls, of 35, Arundélstreet, Strand, in the county of Middlesex, Civil Engineer, has given the like notice in respect of the invention of "improvements in apparatus for cutting continuous paper into sheets, and in piling or disposing of the same when cut."

As set forth in his petition, recorded in the said office on the 4th day of December, 1869.

3563. And Joseph Fisher Alexander, at present residing at the city of New York, United States of America, has given the like notice in respect of the invention of "improvements in undulating propellers for steam ships and other vessels."

As set forth in his petition, recorded in the said office on the 9th day of December, 1869.

3612. And Walter McGee and William McGee, both of Paisley, in the county of Renfrew, North Britain, Engineers, have given the like notice in respect of the invention of "improvements in machinery for doubling and winding fibrous materials."

3617. And George Wallace Honeyman, of Gateshead-on-Tyne, in the county of Durham, Manufacturing Chemist, has given the like notice in respect of the invention of "an improved preparation for the removal and prevention of incrustation in steam boilers."

As set forth in their respective petitions, both recorded in the said office on the 14th day of December, 1869.

3651. And William Foulds, of Paisley, in the county of Renfrew, North Britain, has given the like notice in respect of the invention of "improvements in apparatus for heating feed water."-A communication to him from abroad by William B. Mack, residing at Detroit, Michigan, United States.

3658. And Alexander Melville Clark, of 53, Chancery-lane, in the county of Middlesex, Patent Agent, has given the like notice in respect of the invention of "improvements in jacquard apparatus."-A communication to him from abroad by Eugène Vincenzi, Civil Engineer, of 13, Boulevart St. Martin, Paris.

As set forth in their respective petitions, both recorded in the said office on the 17th day of December, 1869.

3665. And James Smiles, of Birmingham, in the county of Warwick, Gun Maker, has given the | office on the 19th day of January, 1870. No. 23604.

like notice in respect of the invention of "improvements in breech loading fire arms.

As set forth in his petition, recorded in the said office on the 18th day of December, 1869.

- 3705. And John Bourne, of Mark-lane, in the city of London, Civil Engineer, has given the like notice in respect of the invention of "improvements in the mode of and apparatus for the production of heat and the generation and application of motive power derived therefrom." As set forth in his petition, recorded in the said office on the 22nd day of December, 1869.
- 3722. And William Edward Newton, of the Office for Patents, 66, Chancery-lane, in the county of Middlesex, Civil Engineer, has given the like notice in respect of the invention of "improvements in adjusting and packing the rails of railways."—A communication to him from abroad by William Louis Winans and Thomas Winans, of St. Petersburg, in the Empire of Russia.
- 3723. And William Edward Newton, of the Office for Patents, 66, Chancery-lane, in the county of Middlesex, Civil Engineer, has given the like notice in respect of the invention of "improvements in forming the joints of the permanent way of railways or in securing or connecting the rails together so as to form a continuous rail of equal strength and rigidity throughout."-A communication to him from abroad by William Louis Winans and Thomas Winans, of St. Petersburg, in the Empire of Russia.

As set forth in their respective petitions, both recorded in the said office on the 23rd day of December, 1869.

48. And William Weild, of the city of Manches. ter, in the county of Lancaster, Engineer and Machinist, has given the like notice in respect of the invention of "improvements in machinery for winding yarn or thread on to bobbins, spools, or other similar surfaces."

As set forth in his petition, recorded in the said office on the 6th day of January, 1870.

91. And Frederick Hartt Knevitt, of No. 3, Suncourt, Cornhill, in the city of London, Architect, has given the like notice in respect of the invention of "improvements in shutters and blinds for windows, doorways, and other apertures, and in the means for adjusting the same."

As set forth in their petition, recorded in the said office on the 12th day of January, 1870.

122. And Henri Adrien Bonneville, of the British and Foreign Patent Offices, 18, Chaussée d'Antin, Paris, in the Empire of France, and 10, Sackville-street, Piccadilly, in the county of Middlesex, Patent Agent, has given the like notice in respect of the invention of "improved means for warming and ventilating close carriages and boat saloons."—A communication to him from Pierre Grandjean, a person resident at Rue Reaumur, 39, in Paris aforesaid.

As set forth in his petition, recorded in the said office on the 14th day of January, 1870.

154. And Thomas Patterson Balls, Engineer, of Maindy, Cardiff, in the county of Glamorganshire, has given the like notice in respect of the invention of "improvements in apparatus for moulding and compressing substances for artificial fuel."

As set forth in his petition, recorded in the said