3413, To William Thomson, of the Railway Foundry and Ironworks, Normanton, in the county of York, for the invention of "improvements in apparatus for actuating the points or switches of railways."

3414. And to Ernest Fredrik Göransson, of Gefle, near Sandviken, Sweden, for the invention of "improvements in casting rings suitable for making tyres of railway wheels and for other

purposes.

On their several petitions, recorded in the Office of the Commissioners on the 28th day of December, 1866.

3415. To John Erskine Brown, of Glasgow, in the county of Lanark, North Britain, Engineer, for the invention of "improvements in the holding, distending, and otherwise treating or finishing woven and other web fabrics and in the means

or apparatus employed therefor."
3418. To Alfred Vincent Newton, of the Office for Patents, 66, Chancery-lane, in the county of Middlesex, Mechanical Draughtsman, for the invention of "an improved safety attachment to carriages."-A communication to him from abroad by Claude Ducrux, of the city and State of New York, United States of America.

3419. To Humphrey Chamberlain, of Wakefield, in the county of York, Engineer, for the invention of "improvements in the manufacture of coke and charcoal, and in the ovens employed

- 8420. To Arthur John Adams, of Devonport, in the county of Devon, Naval Outfitter, for the invention of "improvements in locks and latches."
- 3421. To William Simons and Andrew Brown, both of the town and county of Renfrew, North Britain, Engineers and Ship Builders, for the invention of "improvements in the arrangement and construction of dredgers."
- 3423. To William Brough Berrey, of Liverpool. in the county of Lancaster, Merchant, for the invention of "an improved composition for cleaning glass and other smooth and bright surfaces."
- 3424. To Charles Harrison, of the city of Manchester, in the county of Lancaster, Machinist, for the invention of "improvements in cocks or valves."
- 3425. To François Jules Manceaux, of Paris, in the Empire of France, Gun Manufacturer, for the invention of "improvements in breechloading fire-arms, and in cartridges for the same."
- 3427. To Edward Barnard Sampson, of Thrupp Lodge, near Stroud, in the county of Gloucester, Manufacturer, for the invention of "improvements in saucepans, kettles, and other vessels for culinary purposes."
- 3428. To Friedrich Leonardt, of Birmingham, in the county of Warwick, Manufacturer, for the invention of "improvements in the manufacture of metallic boxes."
- 3431. To Burrowes Willcocks Arthur Sleigh, of Langham-place, Portland-place, in the county of Middlesex, a retired Lieutenant-Colonel in Her Majesty's Colonial Service, and formerly of the 77th Regiment of Foot, for the invention of "improvements in hydrostatic rotatory motive power engines."
- 3432. To George Payne, of the Belmont Works, Battersea, in the county of Surrey, Chemist, for the invention of "improvements in the manufacture of soap." No. 23210.

- 3434. To William Clark, of 53, Chancery-lane, in the county of Middlesex, Engineer and Patent Agent, for the invention of "improvements in fixing rails to the sleepers or permanent way of railways."-A communication to him from abroad by Jules Vautherin, Iron Master, of 29, Boulevart St. Martin, Paris.
- 3435. And to Charles Sheridan, of Antwerp, but now residing in the Strand, in the county of Middlesex, for the invention of "a new or improved process for the manufacture of oakum." On their several petitions, recorded in the Office of the Commissioners on the 29th day of  ${f Decem-}$ ber, 1866.
- 3438. To George Shrewsbury, of Lower Norwood, in the county of Surrey, Ironmonger, for the invention of "an improved apparatus for heating apartments, conservatories, and baths."
- 3444. To Charles Denton Abel, of No. 20, Southampton-buildings, Chancery-lane, in the county of Middlesex, Patent Agent, for the invention of "improvements in machinery or apparatus for rippling or seeding flax."-A communication to him from abroad by Baron Woldemar Von Loewis, of Menar, of Panten, near Riga, in the Empire of Russia.
- 3446. To James Theodore Griffin, of Fleet-street, in the city of London, Gentleman, for the invention of "improvements in calendar movements for clocks."-A communication to him from abroad by Henry Horton, of Ithaca, in the United States of America.
- 3448. To William Clark, of 53, Chancery-lane, in the county of Middlesex, Engineer and Patent Agent, for the invention of "improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting and heating and as a motive power."-A communication to him from abroad by Alexandre Paul Victor Heurtebise, Engineer, of 29, Boulevart St. Martin, Paris.
- 3450. To Louis Gonzague Speyser, of No. 6, Haydon-square, Minories, in the city of London, for the invention of "improvements in mixing apparatus for mixing mortar and similar materials."
- On their several petitions, recorded in the Office of the Commissioners on the 31st day of December, 1866.
- 2. To William Muir, of the Britannia Works, in the city of Manchester, and of No. 10, Johnstreet, Adelphi, in the city of Westminster, Engineer, for the invention of "improvements in planing machines, which improvements are also applicable to other machines and engines in which sliding surfaces are employed."
- 4. To George Stewart, of the city and county of Aberdeen, North Britain, for the invention of "improvements in the manufacture of combs, and in the machinery or apparatus employed therefor.
- 6. To Henry Alfred James, of Cheltenham, in the county of Gloucester, Esquire, for the invention of "an improved portable folding chair."
- And to George Baldwin Woodruff and George Browning, both of Cheapside, in the city of London, Engineers, for the invention of "improvements in the construction of button hole sewing machines.

On their several petitions, recorded in the Office of the Commissioners on the 1st day of January, 1867.