pick, as spade or shovel, or as hoe, more particularly applicable for intrenching purposes."communication to him from abroad by Frederick Vogel and Hugo Noot, both of Vienna, in the Austrian Empire.

2806. To Gustav Adolph Buchholz, of Richmond, in the county of Surrey, Engineer, for the invention of "improved machinery for hulling

and cleaning grain."

2308. To Wilhelm Hollmann, of Wolfenbuettel, in the Duchy of Brunswick, and at present of Greek-street, Soho, in the county of Middlesex, Manufacturer, for the invention of " improvements in obtaining or producing vegetable charcoal."

2310. To John Pattinson, of Sheffield, in the West Riding of the county of York, for the invention of "improvements in the manufacture

of parallel, staple, and other vices."

2312. And to James Rettie, of Hatton Garden, in the county of Middlesex, Engineer, for the invention of "improvements in apparatus for transmitting and receiving signals and orders or messages."

On their several petitions, recorded in the Office of the Commissioners on the 8th day of June,

1878.

2316. To Friedrich Hermann Felix Engel, Civil Engineer and Patent Agent, in the city of Hamburg, Germany, for the invention of "improvements in steam engines, and apparatus connected therewith."—A communication to him from Carl Hecht and Heinrich Kröger, both of the city of Kiel, Germany.

2318. To James Horrocks, of the city of Manchester, in the county of Lancaster, Machinist, for the invention of "improvements in machinery for doubling and winding, and doubling

and twisting fibrous yarns or threads."

2819. To Henry Beaufort Sears, of Liverpool, in the county of Lancaster, Gentleman, for the invention of "improvements in apparatus applicable to bolts and reels for dressing meal and flour."-A communication to him from abroad by Mortimer Cherbury Gogswell, of New York, and William Henry Finn, of Oswego, both in the State of New York, United States of America.

2320. And to Henri Entz, Captain of Cavalry and Chevalier of the Legion of Honour, of Warcan-Illy, near Sedan, in the Department of Ardennes, in the Republic of France, for the invention of "an improved railway wagon, with morable platform, to facilitate loading and unloading, or transporting loaded vehicles from their place of lading to that of their discharge." On their several petitions, recorded in the Office of the Commissioners on the 10th day of June,

2322. To Francis Holt, of Alverston, near Derby, Engineer, for the invention of "an improved water, steam, and air pipe connection between locomotive-engines and tenders or carriages."

2324. To Benjamin Crecker Cross, of Dewsbury, in the West Riding of the county of York, Engineer and Surveyor, for the invention of "improvements in trough water closets."

2326. To Adam Dobson, of No. 2, Cambraiplace, Belfast, in the county of Antrim, Ireland, for the invention of "improvements in steam

2328. To Andrew Paul and John Haythorn, of Dumbarton, in the county of Dumbarton, North Britain, Engineers, for the invention of "Improvements in steering engines, and applicable to starting loisting and other engines, the motions of which require to be contrôlled in

direction or extent, or both, by hand."
2330. To Daniel de Pass, of Leadenhall-street, in the city of London, Merchant, for the invention of "an improvement in or addition to manures to render them destructive to slugs, ground worms, and like insects or vermin attacking roots of trees, plants, or shrubs."

2332. To Charles Denton Abel, of Southamptonbuildings, in the county of Middlesex, for the invention of "improvements in bakers' ovens, more particularly applicable for the camp or field."—A communication to him from abroad by Johann Peyer, of New Washring, near Vienna, in the Austrian Empire.

2334. And to Charles James Appleton, of 131, Boulevard Sebastopol, Paris, France, for the invention of "improvements in and additions to

plaiting machines.'

On their several petitions, recorded in the Office of the Commissioners on the 11th day of June,

2336. To James Porritt, of the firm of Porritt Bror. and Austin, of Stubbin's Vale, near Ramsbottom, in the county of Lancaster, Manufacturer, for the invention of "an improved

dryer fabric for paper-making machines."
2338. To John Perry. Downing, of the Tyne
Steel Works, Redheugh, Gateshead, in the county of Durham, Steel Manufacturer, for the invention of "improvements in the manufacture of steel and in the refinement of iron."

2340. To Charles Anthony Burghardt, Thomas Rowley, and Arthur Critchley Salomonson, all of Manchester, in the county of Lancaster, for the invention of "an improved process for the utilization of the india-rubber contained in waste vulcanized india-rubber goods and the recovery of the zinc present in such waste goods, also for the treatment of unvulcanized india rubber."

2342. To William Robert Lake, of the firm of Haseltine, Lake, and Co., Patent Agents, Southampton-buildings, London, for the invention of "improvements in centrifugal flour sifting of bolting machines."—A communication to him from abroad by Wilhelm Seck, of Bockenheim,

near Frankfort-on-the-Maine, Germany. 2344. To William Robert Lake, of the firm of Haseltine, Lake, and Co., Patent Agents, Southampton-buildings, London, for the invention of " an improved horn or whistle apparatus chiefly designed for the protection of ships in foggy or stormy weather."-A communication to him from abroad by Noah Smith Woodward, of Sherbrooke, Province of Quebec, Canada.

2346. To Sydney Pitt, of Sutton, in the county of Surrey, for the invention of "improvements in blowers for steam boiler furnaces."-A communication to him from abroad by the Steam Blower Company, of 42, Pine-street, New York, United States of America.

2348. And to Henry Fisher, Thomas Twigger, and Edward Ross, all of the Clifton Colliery Limited, Nottingham, for the invention of "improvements in miners and other picks and in drills used in boring holes for blasting.

On their several petitions, recorded in the Office of the Commissioners on the 12th day of June,

2350. To Charles Denton Abel, of Southamptonbuildings, in the county of Middlesex, for the invention of "an improved manufacture of combustible gas for illuminating and heating purposes and apparatus and lamps employed for that purpose."—A communication to him from