NEW YORK MARKETS.

There has been a very great rise in the price of cotton since our last market price table was published on page 300. Then prices range from 181/2 to 231/2 cents per lb.; now they range from 38 to 401/2 cents pe Domestic cotton goods are rising in price with the rise of the raw terial. The best qualities of flour have advanced fifty cents per 1b. material. barrel. Saltpeter, which is used for making gunpowder has become very scarce and has doubled in price-from 8 to 18 cents per b. -in four weeks. By the latest news from Europe we learn that saltpeter was prohibited from being exported to America, and one vessel that was loading with it had been ordered to unload her cargo

narkets are very fluctuating, and common reports of prices are Th unreliable.



J. B. W., of Mass .- Try hot chloride of lime in bleaching saw-dust white. The resin contained in pine wood saw-dust will tend to resist the action of the chlorine. We have seen pine woodbleached with a warm solution of chloride of coda. Kauri-gum is also sold under the name of New Zealand and Australian gum. Is It is a coarse, natural resin, found under the soil in Australia and New Zealand, and is supposed to have been the exudation of trees be longing to an ancient pre-Adamite forest.

H. B. .B., of Mass.-All the information we can furnish on tempering tools, we are now publishing in articles and will co plete them in a few weeks.

A. M., of N. Y .- Do you mean to say that in your operations of amalgamating gold, the separation of the gold from the mer cury 'is sometimes almost impossible ?" You employ the term "ore,' we suppose it should be gold. In retorting amalgamated gold the pro ess should be conducted under a very limited pressure and not too rapidly, as the mercury when it volatilizes quickly always carries over some gold with it, but we never heard before that any difficulty was experienced in volatilizing all the mercury.

Money Received

At the Scientific American Office on account of Patent Office business, during one week preceding Wednesday, Dec. 18, 1861 :-1861

L. B., of Conn., \$15; C. W. G., of Conn., \$10; A. S., of N. Y., \$15; M. C., of Mass., \$40; C. W. S., of Me., \$15; M. F. G., of Wis., \$30; G.
 W. R., of Ill., \$25; R. H., of Ill., \$25; J. A. W., of Ohio, \$15; W. H A., of Conn., \$15; W. D. L., of Mass., \$10; E. H., Jr., of N. Y., \$275; A., of Conn., \$15; W. D. L., of Mass., \$10; E. H., Jr., of N. Y., \$275;
P. F., of Vt., \$15; P. W. B., of Cal., \$30; J. B. S., of Vt., \$20; P. and
C., of Conn., \$20; D. J. S., of N. Y., \$20; F. G. W., of Mass., \$20; C.
H. H., of N. Y., \$15; J. J. A., of Conn., \$15; F. E. B., of N. J., \$28;
E. D. G., of N. Y., \$25; N. S., of N. J., \$15; I. C., of N. Y., \$15; E.
M. J., of Conn., \$15; J. C. N., of Pa., \$10; A. S. K., of Mich., \$25; B.
and C., of Ind., \$15; J. K., of Scotland, \$25; S. H. A., of N. Y., \$16;
B. and A., of Mass., \$15; J. D., of 111, \$25; F. A. B., of N. Y., \$10;
B. and A., of Mass., \$15; J. A., of N. Y., \$70; H. W. B., of N. Y., \$15;
J. A. U., of Iowa, \$25; A. J. N., of N. Y., \$70; H. W. B., of N. Y., \$10;
F. C., of N. H., \$15; M. B. T., of Mass., \$15; F. F., wo, of N. Y., \$10;
S100; J. S. F. ot 111, \$15; C. W. H., of Conn., \$15; O. N. B., of Iowa³ \$15; F. C., of N. H., \$15; N. B. I., of Mass., \$10, H. F. W., of N. T., \$100; J. S. F., of Ill., \$15; C. W. H., of Conn., \$15; O. N. B., of Iowa³ \$25; P. J. C., of Conn., \$15; G. and B., of Mich. \$15; H. H. W., of N. Y., \$15; W. C. W., of Conn., \$25; E. T., of Mass., \$15; J. H. E., of Pa., \$25; J. B. G., of Mich., \$20; T. M., of N. Y., \$20; A. F. W., of Pa., \$45; J. McL., of Ohio, \$20; T. J. G., of N. Y., \$15; E. and J. H., of N. Y., \$15; R. H. S., of N. Y., \$20.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from Dec. 11 to Wednesday, Dec. 18, 1861 :-

O. N. B., of lowa ; R. H. S., of N. Y.; E. D. and R. G., of N. Y.; W. C. W., of Conn.; J. A. U., of lowa ; A. S. K., of Mich.; M. T. G., of Wis; J. D., of Iowa; R. H., of Ill; G. W. R., of Ill; S. D. K., of N. Y.; J. K., of Scotland; J. H. E., of Pa; W. D. L., of Mass.

TO OUR READERS.

Models are required to accompany applications for Patents under the new law, the same as formerly, except on Design Patents, when two good drawings are all that is required to accompany the Inetition, specification and oath, except the government fee.

INVARIABLE RULE.-It is an established rule of this office to stop sending the paper w n he time for which it was pre-paid

PATENT CLAIMS .- Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 as fee for copying. We can also furnisha sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York,

NEW PAMPHLETS IN GERMAN .-... We have just issued a revised edition of our pamphlet of *Instructions to Inventors*, containing a digest of the fees required under the new Patent Law, &c., printed in the German language, which persons can have gratis upon appli-cation at this office. Address MUNN & CO., No. 37 Park-row. New York.

411

RECEIPTS .- When money is paid at the office for subscriptions, a receipt for it will always be given ; but when subscribers remit their money by mail, they may consider the arrival of the first paper a bona fide acknowledgment of our reception of their funds.



ILLUSTRATIONS.

A Army scale (Howe) 232 Armor for war ships, bomb proof (Wins-low) 276, 336 Augur, mortising (Board & Austin) 293 B Battery, floating (Stevens) 129 Bed bottom, spring (Tucker) 288 Bee hive (Smith) 358 Boiler water gages, testing (Lane) 357 Boring machine (Merchant) 360 Boring machine (Merchant) 360 Brake for steering gear, safety (Meriton) 340 340 C Camp chest (Parr) 65 Camp chest, combination Union army (Reckwell) 280 Camp chest and stove, combined army (Ball) 296 Camp stove (Higgns) 328 Canap stove (Higgns) 328 Canap stove (Higgns) 328 Canap stove (Hogans) 426 Canap stove (Hogans) 426 Canap stove (Higgns) 328 Canap stove (Higgns) 328 Canap stove (Higgns) 428 Canap stove (Higgns) 48 Canal boat (McCausBond) 16 Cannon and projectiles, semi-steel (Cor-ning, Winslow & Co.) 374 Canteeen (Montgomery) 246 Canteeen, tube for (Case) 366 Car coupling and humper (Stroh) 24 Car tase(Weed) 40 Car truck (Harrison) 360 Case hardening metal articles (Casanave, of Paris,) 37 Castings, black washing molds for (Fergu-son) 34 Chair, railroad (McGuffie) 144 Chinese musket or jingall (Livingston) 344 Chemoscope (Stammer) 147 Clothes' dryer (Allen) 48 Davit and cat hook, self-operating (Birdsell) 376 Derklight (Lanergan) 376 Derklight (Lanergan) 376 Derklight (brown) 392 Diastimeter for army use (Goldschmid)

Diastimeter for arm, 200 Ditching machine (Scott) 8 Embossing designs on metals (Riker) 357 Engraving, new system of (Wallis) 224 F

Engraving, new system of (Wallis) 224 Fog Alarms (Daboll) 406 Fruitgrowing moss basket (Chamber-lain) 343 Furnace, hot air (Camp) 216 Gas carbonizer (Gwynne) 241 Gas pipes, apparatus for tapping (Up-ward) 320 Gas pipes, mole of connecting (Norman-dy) 112 Governor valve (White) 272 Great Eastern, temporary steering ap-paratus by which the great ship was saved in the storm (Towle) 264 Gunpowter, experiments with (Rodman) 53 Gunlock (Hillers) 5

Gunpowaea, 53 Gunlock (Hillers) 5 H

Hammer, forge (Paye) 1 Hammer, steam (Imray & Copeland) 104 Holder for bagging grain (Olds) 406 Lice, artificial formation of (Harrison, of Geelon;) 72 Ice, apparatus for making (Carré & Co., France) 286 Ice boat, Hudson river (Stevens) 312 K Kuifasharmener (Stokes) 341

K Knife-sharpener (Stokes) 341 Lamp chimney (Dethridge) 260 Letter box for post offices (Quimby) 126 Loom for weaving balting and other arti-ticles (Clifton) 289

Magneto-electro battery, new (Beardslee) 353 Melodeon, sliding keyboard (Sheldon) 200 Merrimac, war steamer raised and con verted into abattering ram, 304 Mikpan, improved (Spaulding) 384 Motive-power (Giraudat) 385

Paging machine, account book (McAd-amis) 338 Planter, potato (Kersey) 248 Plow and seeding machine (Early & Parvin) 328 Pneumatic spring (Hoagland) 40 Pneumatic dispatch, extension of the new mode of sending letters by the 209 Projectile, improved (Press 1997)

200 Projectile, improved (Brown) 221 Projectile (Sawyer) 122 Projectile, expanding (Gault) 168 Projectile (Sigourney) 127 Projectile (Sigourney) 24 Projectile (Cochran) 24 Pinching and shearing machine (Per-kins) 97

R

Reflectors for store (windows, outside (Clark, of London) 117 Rifle, breech-loading (Wesson) 8 Rilling United States cannon 113 Riveting machine, steam (Garforth) 326 Riveting machine, steam (Garforth) 327 Rollers for preparing flax (Fairbairu) 80 Rollers for rolling mills, casting (Society John Cocher10) 324 Rulers wich paper cutter and rule combi-nation, capillary grooved (Lane) 354 Russian army, cavalry instruction in the (McClellan) 400 S

Russian army, cavalry instruction in the (McClellan) 400 S Sash-fastener (Coburn) 344 Savannah, the privateer 4 Sava milk (Lane) 144 School desk and seat (Chase) 32 Scissor nippers (Walcott) 358 Schrapnell shell and fuse (Dahlgren) 53 Screw stocks and dies (Edaels & Worsten-holm, Birmingham, England) 117 Seat and bun't tent (Garbanati) 369 Sewing machine (Bollman) 161 Shields for resisting shot in ships (Thom-as & de Bathe) 32 Shipbuilding, angulated principle of (Jones) 225 State roof, elastic joint (Sammon) 48 Steeping car, raifroad (Fisher) 145 Sliepping and workingguns (Scott Russell) 168 Snow plow and ice breaker (Steinhauser)

Singing and workingguns (Scott Russell) 168 Snow plow and ice breaker (Steinhauser) 9 Steam superheater (Carvaho) 120 Steam boliers with water, apparatus for supplying (Hunt) 184 Steam carriage for railways (Grice & Steel, process of making (Bessemer) 164 Steel, process of making (Bessemer) 164 Steel and station indicator for railway cars (Ran) 312 Stump puller (Broughton) 49 Tailors and seamstresses, sew tool for (Sullvan) 293 Tanning apparatus (Wheat) 401 Tapping gas pipes, apparatus for (Up-ward 320 Tests for water (Danchell) 216 Thrashing and cleaning machine (Ovlatt) 17 Teasury pote2, United States (Ameri-

17 Treasury note:, United States (Ameri-can Bank Note Co.) 203 V

Vent-stopper for cannon (Hirs chbuhl) 33

War ve?sela, iron (Scott Russell) 76 Washing machine (Oakley) 232 Wheel, water (Truax) 8 Weel-drying apparatus (James) 178

MISCELLANY.

Avertisements 15, 31, 47, 63, 79, 95, 111, 127, 143, 159, 175, 150, 207, 223, 239, 271, 227, 303, 319, 335, 351, 367, 353, 399 Adjustable pipe wrench 408* Atrican travel, steamboat for 12 Ares of the States, 28 Alkali metal, another new 187 Allox, best known fusible 123 Alluminum, wire from 87 Aluminum bronze, brass 169 Aluminum, working in 5 Ambulance system, the French 3 American inventions in England 100 American army, duty of the 115 American arto: Expedition 247 American arto: Expedition 247 American five english and Whitworth riflee described and contrasted 255 American five english and Whitworth riflee described and contrasted 255 American inventions in Europe, contin-ued progress of 203 American steamers in Australia 196 American inventions in Burope, contin-ued progress of 203 American inventions in Surope, contin-ued progress of 203 American fits england 170 American and products used in medicine 184 Ant, the Bashi Kouay 119 Antiline colors, dying acid printing 97 Antiline to various animal posisons 20 Appreciating professional services 182 Artic Expedition 247 Armeis Brilish and French 267 Armeis, Brilish and French 267 Armeis, Brilish and French 267 Armies, Brilish and French 267 Armies for the government 40 Armistro and Arms 53

400* Armory and Arms 53 Arms for the government 40 Armstrong guns, more defects of 248 Armstrong gun an dangulated iron plates, the 186 Armstrong Six William is a potent of the 186 Armstrong, Sir William—is a patent a monopoly 217 Armstrong guns, suspension of the man-ufacture of 329 Armstroidens in the 2

arms to the game, suspension of the man-u facture of 329 Arm y, civilans in the 2 Army to the graph, the 2 Army moves, how an 245 Army around the size of the size of the size Army around the size of the size of the size of the size Army cloth, blue 313 Army cloth, blue 313 Army cloth, blue 313 Army cloth, blue 313 Army year and harnesses in Ohio, com-petition for the contracts for 92 Army rifles 41 Army suggeons on the field of battle, di-rections to 138 Army blankets, the English rotten 323

Petition for the contracts for 92 Army rifes s1 Army surgeons on the field of battle, di-rections to 138 Army blankets, the English rotten 323 Army machine work 357 Army pay 91 Army pay 91 Army mules, interesting facts about 332 Arrivator arms 173 Artificial alizinine, 314 Artificial alizinine, 314 Artificial alizinine, 314 Artificial alizinine, 314 Artificial sign compliment to a Bosten 307 Asphalt varnish, black 214 Asphalt product of the 180 Asiatic irrarm, an 344 Atlantic Nonthly, the 379 Atlantic teamers, new line of mammoth Asthetes, the 187

© 1861 SCIENTIFIC AMERICAN, INC.

Balls, penetration of 106 Baltimore steam gun, invention of the 6 Bamboo and its uses 400 Bank note plates are hardened, the

Bamboo and its uses 400 Bank note plates are hardened, the way 323 Bank notes, mode of engraving 179 Bar iron, some defects of 103 Barometer, principles of the 326 Bauering ram, the New Orleans 210 Bees to California, exportation of 119 Beginning, the 9 Benzole, its nature, properties and uses 378 Benzole as a substitute for turpentine 197 Bessener Kelly iron Aftent 343 Bitackbird nuisance, the 244 Black Prince, thel 147 Blacking, history and art of 282 Blein de Mulhouse, 392 Blind ness among horses-the scauses 174 Blistered feet 20 Blacking, hand and feet 245 Blockade effectual, is the 55 Blue color, new 293 Boat buileing by machinery by an Amer-ican in London 22, 81 Boat and boat machinery, progress of American in Bondon 22, 81 Boiler explosion, remarkable 294 Bonisers and boiler plates 68 Boiler explosion, remarkable 294 Bonisers and boiler plates 64 Brass and shoe machinery, progress of American inventions in Europe 375 Brax mineral 22 Breach-loading carbiner 17 Breast machine-made unformented 10 Breast machine-made 17 Breast machin 3 British Institution. of Civil Engineers 151 British taxation, statistics of 32 British troops sent to Canada 3 Bronze doors for the national capitol, the 391

Brown of the fractional capitol, the swallow's card, Parson 146 Building stones and their preservation 344 Builtet, curious course of a 98 Business, reviving, money plenty, a bet-ter investment than treasury notes 282 Business, reviva of 169 Business, reviva of 169 Butter, General 41 Butter sweet, to keep 48 C Cabinet and our Generals, the 55

C Cabinet and our Generals, the 55 California, prosperity of 315 California, prosperity of 315 California news items 293 California and Pacific items 390 California and Pacific items 390 California silk—labor saving machir

Califor Calforn 332 Attantic steamers, new line of mammoth 34 Atmosphere, the 187 Australian acclimatizing efforts 227 Autumnal tints 277 Balloon reconnoissance 104 * Figures followed by stars refer to 11-Instrated articles,

Cannon and iron plates in the British Parliament, 56 Cannon, ancient 328 Cannon, ancient 328 Cannon, the new Spanish rifled 169 Cannon, making steel rifled 26 Cannon, De Brame's revolving 55 Cannon, a new mode of constructing 160° Cannon, James's viled in what is the

160³ Cannon, James's rifled—in what it con-sists 9 Cannon, old Chinesewrought-from breech-loading 80³⁴ Cannon—shell-proof vessels, new destruc-Cannon, old Chinesewrought-non coccu-loading 80* Cannon-shell-oroof vessels, new destruc-tive 4. Cannons of America and England, the monster 73 Car, a runaway 100 Carbonic acid, natural spring of 325 Care and his lamp 228 Card machime, the 210 Cartridge, new 102 Cartridge, don't bite the 56 Cartridges, don't bite the 56 Cartridges for breech loaders, new 196 Casting cleaned by the revolving drum 67 Cast for for cannon 141

Cartriages for preech loaders, new 190 Castings cleance by the revolving drum 67 Cast inco for cannon 141 Cast iron for cannon 141 Cast iron for cannon 141 Cast steel in a reverberatory furnace, manufacture of 203 Catacombs of Rome, a gallery recently discovered in the 92 Centerly and medicine 99 Chemistry and medicine 99 Chemistry of Inventions, the Marquis of Worcester's 214 Chain making and wages in England 343 Charocal the best filtering medium for water, animal 22 Charlots of war, steel-clast steam 9 Charlots of ward steam 10 Charlots of

242 chimneys, best form of 136 Chimneys, best form of 136 China, the great wall of 205 Chiorie of calcium, curious reaction with 69 Chemerer 7

Chloriae of calculum, curious reaction with 69 Chromoscope, Stammer's improved 147* Citer, how to have good 260 Citer, sulphite of lime in 281 Cinsamon crop in Ceylon 187 Classification of articles at the World's Fair-trades-medials 196 Closing volume, a few words to our sub-scribers on the 407 Clothes, the warmest and the best 299 Coaches, the introduction of 391 Coaches, the introduction of 391

Clothes, the warmest and the best of Clothes, the introduction of 391 Cocae, leaves, their peculiar properties 170 Claims, lists of patent 13, 28, 44, 60, 76, 93, 107, 124, 140, 156, 172, 188, 204, 221, 237, 269, 270, 2×5, 301, 343, 364, 364, 381, 397, 409 Climate, what influences our 21 Coal oil in Canada, the 38 Coal oil explosions in England and Amer-ica 272 Coal in Egypt, searching for 283 Coal inning, a fact about 276 Coal oil sand gas, purifying 52 Coal oils and gas, purifying 52 Coal oil and cas, purifying 52 Coal in California 23 Coal in California 23 Coal, how to measure 236 Coal oilst valuable as fuel 307 Coal, garat waste of -mew machines want-ed 408 Coast ust, utilizing 307 Coal, great waste of -mew machines want-ed 408 Coast ust, or the manufacture of 212 Colors, new green 203 Combustion, phenomena attending 185 Comet, a great 24 Comet, Thatcher's 42