

INDEX OF INVENTIONS.

Air ejectors, J. Y. Smith.....	3203	Lanterns, Seymour Hughes	3143
Ale and other malted liquors, process for preventing and neutralizing sourness, A. Mackay and G. Jones	3181	Life raft, W. R. Jolley.....	3183
Ball and socket joint, J. Arnold, and J. C. Bates.....	3202	Log barn, framed, John Dennis.....	3130
Barn, framed log, John Dennis.....	3130	Logs, machine for rolling, Temple Emery.....	3153
Bed bottoms, spring, A. C. Langworthy, and G. Huntington	3152	Lumber drying house, H. E. Wells	3241
Beef for table use, preparation of, Levi S. Johnson and Marvin G. Johnson	3135	Meat cutters, W. McKean.....	3170
Boots and shoes, machines for crimping leather for, S. W. Jamison	3157	Middlings separator, M. Harmon and E. A. Watson.....	3211
Brick machine, G. S. Tiffany	3208	Milk, apparatus for cooling and preserving, S. F. Cawles... ..	3180
Caloric engine, N. A. Otto	3223	Motion, mechanical combinations for converting, W. F. Barnes.....	3231
Carriage springs, T. Murgatroyd	3145	Motive power machine, J. E. F. Ludeke	3140
Car roofs, J. C. Wands.....	3206	Moulds for casting cores, Henry Parker	3137
Castors, ball, Job Johnson	3164	Mowing machines, W. A. Kirby and D. M. Osborne.....	3144
Cheese making, J. H. Livingston.....	3189	Nail, horse shoe, machines, James Mills	3124
Chucks, J. H. Westcott	3160	Omnibuses, tramway cars, &c., apparatus for registering and checking the entries and exits of passengers, M. A. Weir.....	3151
Churn dasher, metallic, F. A. Everett and M. Bowerman.	3148	Over shoe fastener, G. A. Kittson.....	3212
Coal cinders, apparatus for sifting without dust, T. A. Norris and C. Lockman.....	3179	Paint cans, A. J. Somerville.....	3236
Cooking stoves, dampers for, T. Northey.....	3200	Paint oils, T. Ruston.....	3205
Cords and ropes, machine for fastening, S. T. Barnum.....	3235	Paper bag cutters, J. C. Wilson.....	3221
Creepers, W. H. Boyd.....	3212	Paper machinery and chemical compounds for converting substances into paper stock, F. Genin, E. Beauvais, J. E. Robidoux, J. A. Perkins and R. Préfontaine.....	3218
Dish cloths, E. Degagné and S. P. Brousseau	3197	Peat, machinery for manufacturing, D. Aikman	3219
Drawers, J. J. Fitzpatrick	3218	Peat, manufacture of, F. Dodge.....	3226
Drawing or writing table, J. A. Knight	3178	Photographic background, A. B. Costello	3158
Eave troughs, W. Bryan	3210	Photographs, machine for burnishing, G. Mortin	3181
Embroidering attachment for sewing machines, Israel M. Rose	3187	Pin, safety, J. Poznauski	3162
Engine and pump, triple cylinder, P. Brotherhood.....	3192	Plough mould board, L. Miller.....	3240
Eyes and respiratory organs, apparatus for protecting from extreme heat, smoke, &c., J. H. Beardsley	3225	Propellers, vessel, James L. Cathcart	3132
Fence, portable, W. Beeman.....	3188	Pumps for sand, gravel, &c., D. Bourgeois.....	3204
Fire escape, R. Bustin	3216	Pump, steam, D. Doubs, J. H. Hartsu and P. Douds.....	3128
Fire extinguisher, G. Booth.....	3193	Railway air-brake apparatus, machine for regulating, applying and releasing the fluid pressure on, George Westinghouse, Jr.....	3129
" J. S. Tibbets.....	3195	Railway brake, John Y. Smith.....	3207
Fire place and stove, T. Whitwell	3233	Railway journal boxes, J. A. Smith	3211
Fish, preparing and preserving, W. Sharp.....	3228	" safety car, four wheeled, S. W. Emery.....	3182
Flour and middlings, machine for bolting and purifying, W. Petch.....	3220	" switch, J. J. Thomas and E. G. Thomas	3123
Furnaces and stoves, fire boxes and coal grates for, H. Gaskell.....	3217	Rake, self-acting, attachable to reaping machines, V. H. Felt	3190
Furnaces and stove pipes, dampers for, H. A. White.....	3238	Reapers, T. G. Glover.....	3159
Garden cultivating implements, David Mack.....	3175	Refrigerator buildings, (ice houses), W. M. Mixer.....	3119
Garments, adjustable patterns for cutting, U. L. Webster... ..	3221	Respiratory organs and eyes, apparatus for protecting from extreme heat, smoke, &c., J. H. Beardsley	3225
Gas apparatus, Henry Skolnes.....	3142	Scroll sawing machines, T. W. Dowling	3141
Gas machine, J. Ruthven	3227	Sewing machine, R. M. Wanzer.....	3194
Grain, machine for drying, A. Soper.....	3191	Sewing machine table, castor attachment to, J. K. Proctor	3168
Harness, checkhook guard for, W. C. Shepherd.....	3166	Sewing machines, embroidering attachment for, Israel M. Rose.....	3187
Hatchways, self-closing doors for, J. W. Meaker.....	3171	Sheet metal pans, machine for making, W. Foglesong.....	3127
Hay rakes, horse, C. N. Goss.....	3156	Ship ventilator, fog alarm and bilge pump, automatic, P. D. Roddey.....	3196
Hay tedder, rotary, Stuart Perry.....	3146	Shoe sole burnishers, R. Paradis	3222
Horse shoes, J. J. Nervesp.....	3201	Shot cartridges, Seth W. Paine.....	3155
Horse shoe nail machines, James Mills.....	3124	Shutter and window fastener combined, W. T. Fry.....	3161
Hounds for vehicles, A. Muhleisen	3172	Sink motions and cut off valve, A. R. Thomas and L. C. Thomas.....	3239
Hydraulic engine, traction, A. K. Pedrick.....	3134	Skates, J. A. Whippley.....	3122
Ice houses, W. M. Mixer	3119	Sled brakes, T. H. Bromley.....	3165
Iron fences, B. G. Devoe and W. L. Walker	3239	Snow and ice, machine for melting on streets and railways, John Mullaly.....	3151
Iron planers, tool boxes and cutters for, H. W. Carr, and M. Turnbull	3243	Spindles, attaching knobs to, H. J. P. Whipple.....	3232
Ladder, lock step, G. Macfarlane.....	3199	Steam engines, locomotive, means for preventing cinders entering exhaust pipes of, Israel P. Magoon and C. A. Shaw	3215
Lamp, carbureting, J. W. Post.....	3209	Steam and sailing vessel, construction and arrangement of, R. Quintavalle and R. Le Forte.....	3150
" forced blast heavy oils, Robert Hiltchcock.....	3138		
" glasses, machine for cleaning, Thomas Rose.....	3125		
" Street, T. H. White and G. W. Baker	3167		