



VOLUME XVII, 1889—INDEX.

INDEX OF INVENTIONS.

Abdominal spiral supporter. Euphemta A. McLennan.....	32,299	Archways. Portable centre for constructing. Smith Toye.....	32,274
Accountant: see Mechanical.		Arm : see Contact, Repeating, Standing.	
Acid : see Phosphoric.		Arm or hand rest. W. M. Kinnard.....	30,864
Addition register for pencils, etc. H. C. Rose.....	31,287	Armature for dynamos. E. Thomson.....	31,485
Adjuster : see Cuff.		Armature for dynamos. Thomson Houston International Electric Co.....	31,485
Advertising : see Cabinet, Fare, Sparkling.		Arrow. F. White.....	31,053
Advertising rack. J. H. Randall.....	31,546	Artesian wells. Device for boring. M. Fontaine et al.	30,586
Aerator : see Milk.		Artificial leg. C. A. Trees.....	31,633
Aerial apparatus for navigating the air and for towing. David Thayer.....	32,866	Artificial stone or marble. Manufacture of. B. L. Mosely et al.....	30,579
Air : see Hot.		Ash sifter. Edward E. Smith.....	33,049
Air and gas apparatus for carburettling and enriching. C. Herzog.....	30,882	Atmospheric thermo-electric generator. William S. de Lisle Roberts et al.....	33,087
Air brake. Lansberg Brake Co.....	32,345	Atomization of liquids and application thereof to fabrics etc. R. Kron.....	31,104
Air brake signal. Allen B. Collins.....	32,427	Audible signal. J. Speers et al.....	31,112
Air compressor. Henry C. Sergeant.....	32,232	Auriferous : see Ores.	
Air injector for boiler furnaces. E. B. Cornell.....	31,224	Auroargentiferous : see Ores.	
Air motor. W. Bowes.....	31,729	Awning. H. B. Knoblanck.....	30,385
Air or other gas, machine for compressing. Edward F. Clarke.....	32,675	Axe, W. C. Kelly.....	32,177
Air supply for propelling cars. L. C. Pressley.....	31,640	Axe-belve. Hiram Hall.....	32,310
Air valve. George M. Davis.....	32,225	Axes. Die for making. James P. Kelly.....	32,188
Airiel cable railway. J. B. Perry.....	30,794	Axes. Die for making. William C. Kelly.....	32,689
Alarm : see Burglar, Electric, Fire, High.		Axle : see Car, Dust, Vehicle, Wheel.	
Alarm for grain elevators and analogous devices. J. B. Murphy.....	30,576	Axle and hub attaching device. S. Marfield.....	32,067
Alarm system. C. A. and J. F. Cox.....	32,100	Axle bearing. T. Hayden.....	31,032
Alcohol. Rectification of. A. T. Christophe.....	31,540	Axle box for railway rolling stock. D. Manee.....	30,750
Ale and beer. Mambré Beer Extract Co.....	32,448	Axle boxes or bearings of carriages.....	30,627
Alloys : see Aluminium, Manganese.		Axle cutter. Frank E. Beardsley et al.....	32,672
Alloys of chrome, iron and manganese, Process of making Hienrich Eckardt et al.....	32,217	Axle grease. V. Bédard et al.....	30,548
Aluminium alloys, manufacture of. C. M. Hall.....	31,515	Axle thimble. E. Lockman.....	32,139
Aluminium : see Electrolysis.		Axles. Sand bag for carriage and waggon. A. F. Miles.	31,431
Aluminium. Manufacture of. C. M. Hall.....	31,516	Baby walker. W. Lane et al.....	31,617
Aluminium, Method of and apparatus for manufacturing. Curt Netto.....	32,877	Bag : see Envelope, Paper, School, Mail.	
Aluminium. Process for obtaining. Martin Wanner.....	33,103	Bag fastener. W. H. Merritt et al.....	32,105
Ammunition and its manufacture. W. D. Borland et al.....	30,609	Bag holder. F. G. Fischer.....	31,257
Anatomical apparatus. E. Smith.....	30,936	Bag holder. C. W. Allen.....	31,218
Animal catcher. Clayton Wisdom.....	32,836	Bag holder. George W. Freeman.....	32,756
Animal drinking fountain. Francis E. Merriman.....	32,221	Bag holder. W. R. Burrage.....	31,217
Animal trap. Oneda Community.....	32,854	Bag holder and fastener. Aloysius G. Blincoe.....	32,702
Animals : see Shoe.		Bag holder attached to fan mills. H. T. Lepage.....	30,698
Annunciator : see Mechanical. Railway.		Bag lock. T. W. Harrison.....	30,656
Anti-rattler and nut lock for thill couplings. S. J. Wood.....	31,003	Bag or sack. A. W. Morris.....	31,719
Anvil shears for cutting metal. W. H. Adams, et al.	32,076	Bags. Appliance for filling. O. Asselin.....	30,853
Anvils. Attachment to blacksmith's. B. E. Robinson.....	30,591	Bags, bales, etc. Ties for securing. W. Gibson.....	31,980
Applier : see Urethral.		Baking cabinet. John E. Merriam.....	32,377
Arc lamp. F. R. Boardman.....	31,096	Baking oven. Charles F. Hubbard.....	32,571
Arc lamps. Apparatus for checking or arresting feed of. H. Watt.....	31,816	Baking pan. A. B. Campbell.....	32,141
Arched suspender for overhead electric conductors. Charles J. Van Depoele.....	33,065	Balanced gearing for wind mills. C. H. et W. Tuckwood.....	30,593
		Balanced valve for steam engines. C. M. Farrar.....	30,744
		Baling press. Charles E. and Henry L. Whitman.....	33,090
		Baling press. Irving S. Moulthrop.....	32,306
		Baling press. W. McLean.....	31,302
		Baling presses. Power mechanism for. George Ertel.....	33,213
		Ballast. Feeding apparatus for burning clay for. W. Davy.....	30,998
		Ballot box. Charles M. Taylor.....	32,208
		Ballot slip. O. Durocher et al.....	30,764