believe, from the cocoons contained in such vast numbers, as has been already shown, in empty apple barrels. To these, situated as they generally are in cellars, or in barns or other out buildings, birds have no access, consequently, as the spring opens, the moths mature from them in great flocks, without let or hindrance, and, flying forth into the apple orchards, immediately commence their evil works. We have ourselves noticed the moth in early spring, in the windows of a house in the cellar of which a few bushels of apples had been stored through the winter. Suppose that from one such infested barrel there are generated one hundred female apple-worm moths, and that each moth, on escaping into the orchard, lays only two hundred eggs, thereby spoiling two hundred apples; it follows that twenty thousand apples, or, allowing a hundred apples to the bushel, two hundred bushels of fruit may be ruined by the product of a single old barrel, worth perhaps a quarter of a dollar!

We would, therefore, earnestly impress upon our fruit-growing readers the practical importance of examining all barrels or other vessels, in which apples have been stored through the winter; and if, as will generally be the case, they are found to be swarming with apple-worm cocoons in the spring, let them be either burnt up at once, or thoroughly scalded by immersing them in boiling-hot water for a few minutes.—*American Entomologist.*

VELOCIPEDE NOTES.

An important meeting of the manufacturers of velocipedes was held in this city on Monday, the 7th inst. All parts of the country except New England were represented, and the action was unanimous. It was determined to resist all claims under the Lallemont and Smith patents, and to recognize the Hanlon patents alone. A fund for the purpose of the expected litigation will be provided by a contribution of from fifty cents to a dollar upon each machine made. A committee to take charge of the future proceedings was appointed, consisting of Messrs. T. R. Pickering, Cornelius Van Horn, and G. H. Mercer; Mr. Van Horn as Treasurer. They will at once retain suitable counsel, and prepare for the contest.

The newspapers from Amsterdam, the capital of the Netherlands, mention a new steam velocipede invented by a certain Mr. J. Loeff. It has three wheels, is compact, easily governed, runs very fast, and may be easily stopped. One has been made so as to accomodate two persons, having a steam engine of 1½-horse power, making about twenty miles an hour. Another is in course of construction, of 2-horse power, with seats for four persons.

The success of these vehicles is said to have been such that the practicability of using such velocipedes, instead of horses, to propel the boats on the Dutch canals, is under discussion. To carry out this plan, a company has already been formed.

The French papers contain the description of a peculiar velocipede invented by M. Guillermin, of which we give an extract:

It has three wheels, and is partially covered by the figure of a horse made of india rubber. In the sides of this horse is wheelwork driven by springs, made of thin steel strips, thirty yards long, which are wound up as spirals. These springs are so connected, by means of a series of cog wheels, with the wheels of the velocipede, that, when once wound up, they cause these wheels to make two thousand revolutions, and as their diameter is 3 feet, they may run more than 3 miles when once wound up.

The handle, with which to wind up, is at the side of the horse, within reach of the rider, who can turn it without stopping the machine. The india-rubber horse has its fore legs on the axis of the front wheel; serving in fact only as envelopes for covering the legs of the rider, who apparently makes no motion, but he uses his feet and hands for steering and propelling. It is expected that one may make 15 miles per hour with this machine without fatigue. The ears of the horse are handles by which the rider opens the head, in which is a box containing provisions and refreshments; while behind him, another receptacle in the horse contains his valise and other property.

It is reported that Frenchmen regard this ridiculous machine as one of the most elegant things which has yet appeared since the velocipede sensation first commenced.

Titusville, Pa.

About a mile below Titusville, the first oil-well derrick that was ever built, in this or any other country, is still to be seen. In the light which petroleum has thrown upon the world since, the history of this primitive enterprise stands out like a romance, the interest of which is hightened not a little by the fact that the man who first bored for oil, and by his pluck and perseverance, not only flooded a community with sudden riches, but increased the wealth of the world, is to-day himself a poor man.

That man is Mr. E. L. Drake, commonly called "Colonel Drake" in the oil region. He first made his appearance here in 1857. Previous to that time he had been a conductor on a railroad in Connecticut.

Before the first oil well was sunk Titusville (named after a family of Tituses) was a small backwoods village, with a population of raftsmen and lumbermen numbering about two hundred. Oil flowed from that well, and in five years Titusville became the fourth post-office town in the State. It had forty hotels, and a fixed or floating population of I know not how many thousands—speculators, shop-keepers, well-diggers, and teamsters. The army of teamsters alone numbered at one time not less than four thousand.

Very different is Titusville, to-day.—The brick blocks that sprang up in that period of excitement still remain; and I am told that it has now a permanent population of seven thousand. But comparative quiet reigns here. The forty hotels have been reduced to four or five. This change has not been brought about simply by the failure of wells in this vicinity and the continuation of the railroad down the creek. Oil enough still comes here to keep up the old excitement, if teams were any longer of use in conveying it. Teamsters supported the hotels, the shops, the smithies, and kept various branches of business alive; but the time came for a revolution in this cumbersome and costly method of transportation.

Teamsters were to be superseded. The right man stepped forward at the right moment, and spoke the word of common sense—always a danger and a menace to old routine. "Instead of all this clatter and hubbub of wagons and whips and oaths, in carrying loads of barrels over land, why not," said he, "send the oil silently flowing underground, through pipes, like so much Croton or Cochituate water?" The reform was of course opposed—as all such reforms must be at the outset—by the class whose interests were assailed. Mobs of teamsters tore up the pipes, burned the tanks, and threatened the lives of the pipe-layers. This was done repeatedly; but it was striving against fate. In 1865 the system was fairly established, in spite of all opposition, and now almost the entire product of the oil region, amounting to ten thousand barrels a day, flows or is forced through pipes, from the scattered farms, to the railroad centers, and the army of teamsters has disappeared. A great saving in transportation, in whiskey, and profanity, has been the result.—*Atlantic Monthly.*

Treatment of Scarlet Fever.

Dr. Charles T. Thompson reports in the *Lancet* his manner of treatment in scarlet fever as follows: The patient is immersed in a warm bath in the early stage of the disease, and this is repeated frequently, or as often as the strength of the patient will allow. The first effect is to produce a soothing and refreshing feeling in the patient, to be followed soon by such an eruption on the surface, of so vivid a color, and in such amount as would astonish those who have never witnessed it. Thus one of the greatest dangers of this fearful disease—the suppression of the eruption—is escaped.

The appetite generally returns after the first or second bath, and the strength of the patient is kept up by nutritious food. The bath prevents the dissemination of the disease, by removing the excreta from the skin as soon as it is deposited. This treatment promotes cuticular desquamation. The body should be gently dried by soft linen cloths after the bath.

By this procedure the various secretions are deprived of their noxious properties, and the irritation of internal organs is quickly relieved, thus dissipating infection. Another benefit is that a very serious case is soon reduced to a mild one, and the patient recovers in less than half the usual time. Since Dr. Thompson has pursued this practice—during the last fifteen years—he has never lost a patient from scarlet fever.

Correspondence.

The Editors are no responsible for the Opinions expressed by their Correspondents.

Crank vs. Pulley.

MESSRS. EDITORS:—The subject of the crank and pulley have at various times received attention in the columns of your journal, and always to the disadvantage of the pulley. Not I think because of the intrinsic advantage of the crank over the pulley, but from the manner in which the subject has been presented by the advocates of the pulley. These advocates have always laid their great stress on the pulley by the advantage in leverage, which they affirm it has over the crank, while every mechanician will see at once that they are mistaken; but instead of meeting the crankites with argument and facts to sustain their side of the question, they call hard names and endeavor to ridicule the crankites out of their true position. Now while I am not certain that I am right, not because I am not positive in the correctness of my position, but because I find no one who agrees with me on the subject, I will, with your permission, endeavor to show wherein the crank loses power in its operation, and wherein it would be saved by the pulley, or some other device, could one be found that would work as practically as the crank.

In the first place, there is a difference in the travel of the piston from the center of the cylinder, to the ends of the cylinder, according to the length of the pitman; with a short pitman more and with a long pitman less. When the piston is at the outer end of the cylinder and moving in toward the crank at half stroke, the crank has not made a quarter revolution; and when it travels the other half of the stroke, or comes to the other end of the cylinder, it makes just as much more of the quarter revolution as it fell short of in the first half of the stroke; and when it turns the corner and returns, the first half of the stroke makes more than a quarter of a revolution, and the last half of a stroke less than a quarter revolution; so that there is a constant antagonism between the travel of the piston in the first and last half of the stroke; and not uniform either, for the first half of the outgoing stroke is the longest, and the first half of the ingoing stroke is the shortest. Now this being the case, just as much steam is used in one end of the cylinder as the other; either the piston must make unequal time in its travel, or the crank and fly wheel must make unequal time in its motion—and there is a constant antagonism between them, and it seems to me an effort of power to keep up an equilibrium. But it may be said, which is true, there is just an equal amount of leverage, in the two halves of the stroke, and consequently, an equal amount of power exerted, on the crank, the whole stroke. That is all true, but it does not help the matter any, it does not change the time taken to pass through, or over a given space, for the leverage on the short travel of the crank being just the same as that on the long travel, it has a tendency to make the crank travel faster over the short part of the stroke than it does over the long, while the requirement to keep up steady and uniform travel of the crank and fly wheel, would require the quickest amount of travel over the long part of the stroke. And that is the reason in my opinion, why a large and heavy fly wheel, is required for an engine. It is to give regularity of motion and not to pass the centers.

Milwaukee, Wis. J. B. SMITH.

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90,911.—SEED PLANTER.—Moses Adams, Chilmark, Mass.

90,912.—STOVEPIPE DAMPER.—Thos. K. Anderson, Hornellsville, N. Y.

90,913.—SASH LOCK.—H. G. Arnold, Rochester, N. Y.

90,914.—CONVEYER TO TRANSFER BLANKS FROM A PUNCHING PRESS.—J. H. Baird, Oakville, Conn.

90,915.—THREE-HORSE EQUALIZER.—F. E. Barr, Albion, assignor to himself and J. J. Barr, Elba, N. Y.

90,916.—MEASURING CAN FOR LIQUIDS.—Wm. Barry, Carthage, N. Y.

90,917.—MODE OF FORMING THE CONNECTIONS OF GAS PURIFIERS.—Robert Briggs, Philadelphia, Pa.

90,918.—CENTER VALVE OF GAS WORKS.—Robert Briggs and Peter Muntzinger, Philadelphia, Pa.

90,919.—ATTACHING AUGERS TO HANDLES.—Elisha Broad, St. Anthony, Minn. Antedated June 3, 1869.

90,920.—CORSET SKIRT SUPPORTER.—J. W. Brooks, Boston, Mass.

90,921.—MACHINE FOR PLOWING AND BREAKING UP GROUND.—John Bryan, Lebanon, Ill.

90,922.—CORD-TIGHTENER FOR CURTAIN FIXTURES.—Albert Carter (assignor to himself and G. K. Ryan), New York city.

90,923.—BOSOM PAD.—Benj. Carter, Middletown, Conn.

90,924.—FURNACE FOR THE MANUFACTURE OF IRON AND STEEL.—T. J. Chubb, Williamsburgh, N. Y.

90,925.—MODE OF MAKING CAST-STEEL CASTINGS.—Thos. J. Chubb, Williamsburgh, N. Y.

90,926.—PROCESS OF MAKING CAST STEEL.—T. J. Chubb, Williamsburgh, N. Y.

90,927.—PROCESS OF MELTING AND REFINING IRON FOR MALLEABLE IRON CASTINGS.—T. J. Chubb, Williamsburgh, N. Y.

90,928.—MAKING BLOOMS OF STEEL AND WROUGHT IRON.—T. J. Chubb, Williamsburgh, N. Y.

90,929.—BRICK AND TILE KILN.—S. H. Clapp, Malden, Mass.

90,930.—STEAM-OPERATED WATER EJECTOR.—Hugh Coll Millville Borough, Pa.

90,931.—MACHINERY FOR CUTTING CARDS.—Edwin Cowles, Cleveland, Ohio.

90,932.—GRAIN SEPARATOR AND MIXER.—J. J. Crowley, San Francisco, Cal.

90,933.—ROLLING APPARATUS.—E. M. Davis (assignor to G. R. Duncan), Pittsburgh, Pa.

90,934.—DRAFT REGULATOR FOR HEATING APPARATUS.—Royal E. Deane, Brooklyn, N. Y.

90,935.—COUPLING FOR PUMP RODS.—I. A. Dewar, D. S. Smith, and R. A. Brashear, Franklin, Pa.

90,936.—FANNING MILL.—E. P. Dickey, Racine, Wis.

90,937.—HANGER FOR SHAFTING.—James Duff (assignor to himself and E. B. Pierce), Peoria, Ill.

90,938.—TUG HOOK.—John Eck, Medora, Ind.

90,939.—HARROW.—Joseph Foltz, Valley Mills, Ind.

90,940.—PUMP.—I. N. Forrester, Bridgeport, Conn.

90,941.—BEDSTEAD, SEAT, ETC.—C. T. Frost, Medfield, Mass.

90,942.—WASH BOILER.—G. M. Granger, Memphis, Miss.

90,943.—PINKING MACHINE.—F. L. Hagadorn, Baltimore, Md.

90,944.—PROCESS OF PRESERVING MEAT, FOWL, FISH, ETC.—Charles Havard and M. X. Harmony, London, England.

90,945.—KEY FASTENER.—J. E. Hills, Orange, Mass.

90,946.—MACHINE FOR SCUTCHING AND THRASHING FLAX.—Moses Jerome, Dixon, Ill.

90,947.—VELOCIPEDE.—E. A. Jones, Sturgis, Mich.

90,948.—STUD.—J. G. Kenyon, Providence, R. I.

90,949.—LIGHTNING ROD.—T. T. Kinsey, deceased, Philadelphia, Pa. (M. H. Kinsey and James Gilkyson, administrators).

90,950.—CORSET.—H. E. Marchand (assignor to R. E. Cross), Louisville, Ky.

90,951.—METALLIC CARTRIDGE.—J. V. Meigs, Washington, D. C.

90,952.—SHIFTING CLEATS, OR RING BOLTS, ETC.—J. E. Murray, Provincetown, assignor to himself, Z. D. Rich, Somerville, and Jos. Hall, Cambridge, Mass.

90,953.—SEEDER AND FERTILIZER.—J. J. Naylor, Brighton, Mich.

90,954.—SEWING MACHINE.—James Neale and Peter Beck, Bridgeport, Conn.

90,955.—PROCESS OF COLLECTING GOLD AND SILVER FROM ORES.—A. F. W. Partz, Oakland, Cal.

90,956.—RING FOR SPINNING MACHINE.—H. L. Peirce, Taunton, Mass.

90,957.—FIRE-PLACE HEATER.—D. S. Quimby, Jr., (assignor to D. S. Quimby), Brooklyn, N. Y.

90,958.—STEP AND BEARING FOR VERTICAL SHAFTS.—George Richardson, Lowell, Mass.

90,959.—DEVICE FOR TURNING SAW LOGS.—Warren Richardson, Colfax, Cal.

90,960.—MITER BOX.—Ezekiel Root, Parma, Mich.

90,961.—COMBINED LAND ROLLER, MARKER, AND HARROW.—Roger Sandiford, Joliet, Ill.

90,962.—MEDICAL COMPOUND.—Oscar Scidmore, Albany, N. Y.

90,963.—MINER'S LAMP.—William Seybold (assignor to himself and S. H. Hoffman), Mc Keesport, Pa.

90,964.—SNAP HOOK.—W. W. Sly, South Haven, Mich.

90,965.—BUGGY-TOP BOW SETTER.—Obediah Smith (assignor to himself, M. Y. Givler, and W. H. Roser), Bloomington, Ill.

90,966.—IRONING TABLE.—Henry Soggs, Columbus, Pa.

90,967.—MINER'S LAMP.—J. S. Sommerville, Snow Shoe, Pa.

90,968.—CARRIAGE AXLE.—Thomas Spurrier, Sharon, Pa.

90,969.—STONE SAWING MACHINE.—T. H. Stevens, Dover, N. Y.

90,970.—HAY AND COTTON PRESS.—Enoch Thomas, Craigsville, Va.
90,971.—FARM GATE.—C. W. Todd, Spring Arbor, Mich.
90,972.—SAW FILING MACHINE.—William Tucker, Philadelphia, assignor to himself and P. A. Snell, Pittsburg, Pa.
90,973.—STEP LADDER.—C. G. Udell, Chicago, Ill.
90,974.—SHOULDER BRACE.—G. W. Walker, Lowell, Mass.
90,975.—FIRE ESCAPE LADDER.—Carl Weidling, New York city.
90,976.—VENTILATOR.—Henry White (assignor to himself and W. F. Whitehouse), Chicago, Ill.
90,977.—RAILWAY CAR COUPLING.—O. D. Woodruff, Southington, Conn.
90,978.—GRINDING MILL.—Henry Albright, Cranesville, West Va.
90,979.—CLOTHES RACK.—James Alcorn (assignor to J. N. Melvin for one third, and Thomas Quinn for one third), Charlestown, Mass.
90,980.—HARROW.—A. W. Ball, Delaware Grove, Pa.
90,981.—GRAIN SEPARATOR.—Stephen Ballard, Sr., Sullivan, Ind.
90,982.—FRICTION CLUTCH AND BRAKE.—Darius Banks, Jr., New York city.
90,983.—STOVE COVER.—O. B. Bartlett, Lewiston, Me.
90,984.—BEEHIVE.—J. H. Bassler, Pine Grove, Pa.
90,985.—BABY JUMPER.—William Berg and Mathias Stephan, Canton, Ohio.
90,986.—STALL FLOOR.—W. M. Bleakley, Verplanck, N. Y.
90,987.—SOLDERING FURNACE.—J. G. Borden and Walter Power, Brewster Station, N. Y.
90,988.—COMBINED STEAM AND VACUUM GAGE. — Charles Bourgeois, Buffalo, N. Y.
90,989.—COUPLING FOR WHIFFLETREES.—D. J. Brady, Greenwich township, Ohio.
90,990.—SPRING SADDLE-TREE.—J. R. Bragg, Williamsburg, Mo.
90,991.—FORK FOR HAY SPREADERS.—G. E. Burt and E. A. Hildreth, Harvard, Mass.
90,992.—FRICTION CLUTCH.—C. W. Cardot, Jamestown, N.Y.
90,993.—CARRIAGE WHEEL.—C. F. Carman, Hamburg, Iowa.
90,994.—MEAT CHOPPER.—Paul Clareton, New York city.
90,995.—TEAPOT HANDLE.—L. C. Clark, Plantsville, Conn.
90,996.—LET-OFF MECHANISM FOR LOOMS.—Wm. R. Clark, North Adams, Mass.
90,997.—POCKETBOOK.—S. C. Currie, New York city.
90,998.—CORD HOLDER FOR PICTURE FRAMES, ETC.—R. d'Heureuse, New York city.
90,999.—BED BOTTOM.—Samuel Dunlap, Rome, Ga.
91,000.—LUBRICATING CUSHION FOR RAILWAY CAR JOURNALS.—P. S. Devlan, Jersey City, N. J., assignor to himself and W. H. Jewell, New York city.
91,001.—HAY SPREADER.—W. H. Elliot, New York, assignor of one half to M. D. Myers, Frankfort, N. Y.
91,002.—SEED PLANTER.—F. E. A. Engelman, Cheektowaga, N. Y.
91,003.—CORN SHELLER.—F. Fanning, Atchison, Kansas.
91,004.—BAG HOLDER.—E. A. Fisher, Morganville, N. Y.
91,005.—CORN HARVESTER.—Amander Ford, Toledo, Ohio.
91,006.—WEATHER STRIP.—E. P. Ford, Shipman, Ill.
91,007.—PACKING IN CYLINDERS FOR DRYING PAPER.—W. B. Fowler, Lawrence, Mass.
91,008.—MANUFACTURE OF CORES.—Samuel Fulton, Conshohocken, Pa.
91,009.—NUT AND COFFEE ROASTER.—D. A. T. Gale, Poughkeepsie, N. Y.
91,010.—STEAM ENGINE PISTON PACKING.—John Gates, Portland, Oregon.
91,011.—KNIFE SCOURER.—S. R. Goodsell and J. Q. Adams, Brooklyn, N. Y.
91,012.—TOILET AND NURSERY TABLE.—Henry Havekorst, Leavenworth City, Kansas.
91,013.—FEED BOX.—Joseph Hawse, Wolcott, Vt.
91,014.—GUN LOCK.—R. D. Hay and J. M. Hill, Crooked Creek, N. C.
91,015.—CENTER BEARING FOR LOCOMOTIVES.—B. W. Healey, Providence, R. I.
91,016.—CHURN.—Eaton Hitchcock, Sturbridge, Mass.
91,017.—WATER WHEEL.—J. B. Holmes, Lawrence, Kansas.
91,018.—VELOCIPEDE.—W. F. Holske and B. T. Babbitt, New York city.
91,019.—BELL LEVER BOX.—B. W. Hopper, Astoria, N. Y.
91,020.—SHADE FOR GAS AND LAMP BURNERS.—John Horton, New York city.
91,021.—REFRIGERATOR.—David Howarth, Portland, Me.
91,022.—APPARATUS FOR PARLOR GAMES.—Chas. N. Hoyt, Providence, R. I.
91,023.—WATER ELEVATOR.—David Jones, Machen, Newport, Wales.
91,024.—HARROW.—S. G. Jones, Niantic, Ill.
91,025.—MACHINE FOR MAKING PAPER BOXES.—J. M. D. Keating and T. V. Waymouth, New York city.
91,026.—SHUTTER WORKER.—Daniel Kidder, Franklin, N. H.
91,027.—RAKE.—J. C. Klein, Birmingham, Pa.
91,028.—CAR COUPLING.—Charles Layton, Matawan, N. J.
91,029.—VIOLIN.—Jacob Lonhard, New York city.
91,030.—MOSQUITO NET SUPPORT.—B. M. Leroy and Albert Strasser, Montgomery, Ala.
91,031.—CULTIVATOR PLOW.—A. J. Lewis, Pittsburgh, Pa.
91,032.—FLY FRAME.—J. G. Luscomb, Taunton, Mass.
91,033.—IRONING BOARD.—Andrew Matson, Elizabeth, N. J.
91,034.—COTTON BALE TIE.—G. B. McDonald, Louisville, Ky.
91,035.—VELOCIPEDE.—J. W. McMillan, Greenville, Ala.
91,036.—POTATO DIGGER.—F. A. Morley, Syracuse, N. Y.
91,037.—COMBINED HORSE HAY RAKE AND HAY SPREADER.—F. E. Nearing, Brookfield, assignor to himself and Wm. H. Hubbell, Danbury, Conn.
91,038.—BLACK PIGMENT FROM MINERAL CARBON.—Philip O'Reilly, Hartford, Conn.
91,039.—STEP LADDER.—W. G. Philips, Newport, Del.
91,040.—TOOL FOR TRIMMING BOLT HEADS.—A. P. Plant, Plantsville, Conn.
91,041.—BRICK AND SAND DRYER.—S. D. Rader, Williamsport, Pa.
91,042.—ANCHOR FOR ANIMALS.—P. H. Raiford, Houston, Texas.
91,043.—FASTENING FOR FIREPROOF SHUTTERS.—Thomas Reese and W. L. Reese, St. Louis, Mo.
91,044.—NAIL CLINCHER FOR HORSESHOES.—Nicholas Repp, Waterloo, Iowa.
91,045.—OPERATING SHIPS' PUMPS.—Almon Roff, Southport, Conn.
91,046.—VEGETABLE GATHERER.—J. Schermerhorn, Daysville N. Y.
91,047.—TOOL FOR SPLITTING WHALEBONE.—Jas. A. Sevey, Boston, Mass.
91,048.—MECHANICAL MOVEMENT.—Henry Shutts, Oregon, Mo.
91,049.—STUMP EXTRACTOR.—William Smith, Pine Hill, Wis.
91,050.—MECHANISM FOR STOPPING THE LOOM WHEN A WARP BREAKS.—J. J. Switzer, Chelsea, assignor to himself and E. H. Fitts, Northborough, Mass.
91,051.—FURNACE FOR EXTRACTING ZINC FROM ITS ORES.—Alois Thoma (assignor to the American Zinc Company), New York city.
91,052.—ZINC FURNACE.—A. Thoma (assignor to the American Zinc Company), New York city.
91,053.—SAD-IRON HEATER.—P. W. Thomas, Waterbury, Vt.
91,054.—DOUGH KNEADER.—Friend Thrall (assignor to himself and A. B. Thrall), Oshkosk, Wis.
91,055.—MACHINE FOR DOUBLE-SEAMING SHEET METAL.—Archibald Trolan, Norwich, Conn.
91,056.—PEN.—J. W. Truman, Macon, Ga.
91,057.—BALING SHORT-CUT HAY AND STRAW.—S. W. Adwen, Rochester, N. Y.
91,058.—CARTRIDGE CASE CLEANER.—F. H. Aiken, Franklin, N. H.
91,059.—FIRE PLACE.—T. C. Aldridge, St. Louis, Mo.
91,060.—VALVE GEAR.—A. M. Allen, New York city.
91,061.—VELOCIPEDE.—A. M. Allen, New York city.
91,062.—VELOCIPEDE SADDLE.—Geo. B. Ambler, Bridgeport, Conn.
91,063.—HATCHWAY FOR BUILDINGS.—Israel Amies, Philadelphia, Pa.
91,064.—TOOL HANDLE.—E. J. Amor (assignor to himself and H. E. Donor), New York city.
91,065.—VISE.—A. G. Andren, Gottenburg, Sweden.
91,066.—GAS WORKS FOR MAKING COAL GAS.—Avery Babbett and W. W. Binney, Anburn, N. Y.
91,067.—GRAIN SEPARATOR—C. F. Babcock, Chicago, Ill.
91,068.—VISE.—C. S. Backus, Winchendon, Mass.
91,069.—COMBINED STEAM GENERATOR AND STOVE.—L. F. Bancroft, Worcester, Mass.
91,070.—POLISHING AND CLEANSING POWDER.—J. W. Bates, St. Paul, Minn.
91,071.—SHIELD FOR TUNNELING.—A. Ely Beach, Stratford, Conn.
91,072.—RATCHET FEED.—A. B. Bean, New Haven, Conn.
91,073.—STOVE DRUM.—H. E. Blemker, Evansville, Ind.
91,074.—MACHINE FOR TURNING WAGON AXLES.—Albert Booth, Springfield, Ill.
91,075.—MAIL-BAG.—Fred. C. Borst and Philander Wonsey, Spencerport, N. Y.
91,076.—COOKING STOVE.—G. S. Bosworth, Troy, N. Y.
91,077.—CUTTING HAT-TIPS.—T. W. Bracher, New York city. Antedated May 23, 1869.
91,078.—HORSE HAY-FORK.—Joseph Bradley, Racine, Wis.
91,079.—DEVICE FOR OPERATING THROTTLE-VALVES.—H. L. Brevoort, Brooklyn, N. Y.
91,080.—FASTENING FOR TOP-MASTS AND TOP-GALLANT MASTS.—Leverett Brown, New York city.
91,081.—MANUFACTURE OF BRACELETS.—Geo. Burch, Newark, N. J.
91,082.—MACHINE FOR MILLING THE BODY OF KEYS.—Francis Caffrey and J. L. Nettleton, West Cheshire, Conn.
91,083.—SECURING BUTTONS TO FABRICS.—Geo. J. Capewell, West Cheshire, Conn., assignor to "Porter Brothers," New York city.
91,084.—CULTIVATOR.—D. F. Carr, East Union township, Ohio.
91,085.—MACHINE FOR DISINTEGRATING FERTILIZERS AND OTHER ARTICLES OF MANUFACTURE.—Thos. Carr, Bristol, Great Britain. Patented in England, Oct. 2, 1868.
91,086.—FURNITURE CASTER.—Stephen Chandler, New York city.
91,087.—HARNESS.—S. G. Cheever, Boston, Mass.
91,088.—SASH BALANCE.—Peter Christiansen, Rochester, Minn.
91,089.—HAIR-DYEING BRUSH.—W. B. Coates (assignor to Edwin Clinton and W. H. Eisenbrey, for three fourths of the invention), Philadelphia, Pa.
91,090.—COMPOSITION CRAYON.—William Compton, New York city.
91,091.—COTTON BALE TIE.—Jos. Crookes (assignor to himself and J. W. Branch), St. Louis, Mo.
91,092.—DEVICE TO PREVENT INJURY TO LIQUOR ON TAP.—J. G. Cullmann, Cincinnati, Ohio.
91,093.—APPARATUS FOR RAISING AND DUMPING COAL.—Jos. Delaney, Ashland, Pa.
91,094.—COMPOSITION FOR DESTROYING ANTS.—J. D. Dennis, Gilroy, Cal.
91,095.—CLOTHES MANGLE.—F. A. Desloge, St. Louis, Mo.
91,096.—PAPER BOX.—H. A. Devendorf, Port Jackson, N. Y.
91,097.—COMBINED SAW-SET, GUMMER, PUNCH, AND WIRE-CUTTER.—J. L. Devol, Parkersburg, West Va.
91,098.—PEANUT OVEN.—Dexter Dill, New Haven, Conn.
91,099.—EXTENSION TABLE.—Jacob Dourson, Columbus, Ohio.
91,100.—PROCESS FOR REDUCING THE SIZE OF PLASTER MOLDS.—Nancy A. Downer, Canandaigua, assignor to herself and David C. Chase, Clayton, Mich.
91,101.—SEWING MACHINE FOR SEWING TURNED SHOES.—Wm. Duchemin (assignor to Geo. B. Bigelow, trustee), Boston, Mass.
91,102.—HARVESTER-CUTTER.—G. L. Du Laney, Mechanicsburg, Pa.
91,103.—STEAM-GENERATOR SMOKE-STACK.—W. W. Dungan (assignor to Mary D. Dungan), Baltimore, Md.
91,104.—TEA AND COFFEE-POT.—John E. Earle, New Haven, Conn.
91,105.—STREET CAR.—Zebina Eastman, Chicago, Ill.
91,106.—CORN PLANTER.—J. H. Ernest, Millerstown, Pa.
91,107.—TRAVELING-BAG FRAME.—F. Fischbeck, Chicago, Ill.
91,108.—POSTAGE STAMP, ETC.—Addison C. Fletcher, New York city.
91,109.—PLOW.—F. M. Franklin (assignor to himself and E. M. Doty), Springfield, Ohio. Antedated May 24, 1869.
91,110.—MACHINE FOR CLEANING OATS.—Wm. D. Freeman, Tomales, Cal.
91,111.—CARPET FASTENER.—S. N. French, Fitchburg, Mass.
91,112.—CORSET FASTENING.—Maggie E. Frentz, New Albany, Ind.
91,113.—GLOVE.—Sigmond Goge, Brooklyn, N. Y.
91,114.—COMPOUND FOR MAKING FRICTION MATCHES.—O. C. Green, Copenhagen, Denmark.
91,115.—AXLE-BOX COVER.—Fred. Grinnell, Meadville, Pa., assignor to N. C. Miller and S. R. Dummer, New York city. Antedated Dec. 8, 1868.
91,116.—GUARD FOR DOOR KNOBS.—W. W. Guild, Walpole, N. H., administrator of the estate of J. W. Mellish, deceased.
91,117.—MACHINE FOR THREADING SCREWS.—N. B. Hadlay, Providence, R. I.
91,118.—SECTIONAL MOLD FOR GLASS-WARE.—R. D. Haines, Cambridge, assignor to the "Boston Silver Glass Company," Boston, Mass.
91,119.—SOLID GLASS-WARE MOLD.—Robert D. Haines, Cambridge, assignor to the "Boston Silver-Glass Company," Boston, Mass.
91,120.—STEAM PACKING.—A. H. Hall and H. T. Lee, Marysville, Cal.
91,121.—SAWING MACHINE.—E. R. Hall (assignor to himself Wm. H. Town, and C. E. Candee) Syracuse, N. Y.
91,122.—ELASTIC HEEL GUARD FOR HORSES.—Wm. H. Hall, New Gloncester, Me., assignor to himself and John R. Clifford, Chelsea, Mass.
91,123.—HOMOMOTIVE.—William Smith Hall, Quincy, Mass.
91,124.—IRON TRUSS-BRIDGE.—Geo. Halstead, Buffalo, N. Y.
91,125.—MANUFACTURE OF WROUGHT-IRON COLUMNS.—Geo. Halstead, Buffalo, N. Y.
91,126.—CURRENT-CHANGING APPARATUS.—C. C. Hare, Kansas City, Mo.
91,127.—HARNESS.—John K. Harris, Springfield, Ohio.
91,128.—SEPARATOR FOR MEAL, ETC.—Wm. Hawkins (assignor to himself, and F. W. Barnhart), Brooklyn. N. Y.
91,129.—PLOW.—Jacob Heckendorn, Reading, Pa.
91,130.—LAMP SHADE.—A. B. Hendryx, Ansonia, Conn.
91,131.—ANIMAL TRAP.—J. Herr, Carbondale, Ill.
91,132.—GLASS-WARE PRESS.—C. H. Hersey and W. E. Hawes (assignors to themselves, and F. C. Hersey), Boston, Mass.
91,133.—PAPER FOR ROOFING.—James Howard, West Manchester, Pa.
91,134.—REGULATOR FOR VULCANIZING APPARATUS.—G. H. Hurd, Memphis, Tenn.
91,135.—CHANDELIER.—Charles F. Jacobsen, New York city.
91,136.—MACHINE FOR CUTTING DOWN HEELS OF BOOTS AND SHOES.—J. L. Joyce, New Haven, Conn.
91,137.—TWEER.—Jos. Kay, New Haven, Conn.
91,138.—MACHINE FOR POLISHING SHIRT BOSOMS.—J. J. Kenna, San Francisco, Cal.
91,139.—PERMUTATION LOCK.—L. W. Langdon, Northampton, assignor to himself and J. G. Clark, Springfield, Mass.
91,140.—CAR COUPLING.—A. Z. Long (assignor to himself and W. G. Dowd, Scranton, Pa.
91,141.—LAMP BURNER.—J. C. Love, Philadelphia, Pa.
91,142.—HARDENING STEEL.—Obadiah Marland, Boston, Mass.
91,143.—SEED PLANTER.—E. G. Matthews, Newton, assignor to F. F. Holbrook, Dorchester, Mass.
91,144.—HAND CULTIVATOR.—E. G. Matthews, Newton, Mass.
91,145.—SWEEPING MACHINE.—I. W. McGaffey, Chicago, Ill.
91,146.—SWIVEL COCK EYE.—R. A. McKanna, Young America, Ill.
91,147.—HAY LOADER.—A. J. McKee and S. D. McKee, Beaver Dam, Ohio.
91,148.—CAR HEATER AND VENTILATOR.—Wm. S. McNeil, Springfield, Mass., assignor to American Car-Heating Company, New York city.
91,149.—SEWING MACHINE.—Stephen W. Miller, Dundee, N. Y.
91,150.—TOOL FOR CUTTING GLASS.—S. C. Monce, Bristol, Conn.
91,151.—PUMP.—James A. Morrell, New York city.
91,152.—SIRUP COCK.—Andrew J. Morse, Boston, Mass.
91,153.—NECK-TIE RETAINER.—Porter C. Moulton, New Haven, Conn.
91,154.—ATTACHING HANDLES TO PICKS.—Thomas H. Neal, Alleghany Pa.
91,155.—STONE-CUTTING AND DRESSING SAW.—Isaac E. Newton, Waterbury, Conn.
91,156.—FAN.—O. R. Nitsch, New York city.
91,157.—PLOW.—Wm. O'Neill, Pine Level, Ala. Antedated May 28, 1869.
91,158.—WOOD PAVEMENT.—Joseph F. Paul, Boston, Mass.
91,159.—LIFTING DEVICE FOR DROP PRESSES AND HAMMERS.—Charles Peck, New Haven, Conn.
91,160.—HORSE HAY FORK. — George C. Perry, Ortonville, Mich.
91,161.—COMBINED SEEDER AND CULTIVATOR.—O. M. Pond, Independence, Iowa.
91,162.—BOOT CRIMPER.—Josiah M. Read, Boston, Mass.
91,163.—DOOR PULLEY.—John Reiser, Trenton, N. J.
91,164.—SHOVEL PLOW.—Sanford Riley, Northcutt's Store, Ky.
91,165.—MACHINE FOR MAKING HORSESHOES.—William D. Rhinehart, Pittsburgh, Pa.
91,166.—ATTACHING PEN RACKS TO INKSTANDS.—C. A. Roberts, West Meriden, Conn. Antedated May 27, 1869.
91,167.—GATE HINGE.—Ira J. Ryerson, Pierceton, Ind.
91,168.—DINNER PAIL.—Moritz Saulson, Troy, N. Y.
91,169.—VELOCIPEDE.—Friedrich Schmitt, Springfield, Ill.
91,170.—COFFEE BOILER.—C. H. Scholle, Cincinnati, Ohio.
91,171.—BOLT-HEADING MACHINE.—Francis Schweizer, Greenpoint, N. Y.
91,172.—HARVESTER.—John F. Seiberling, Akron, Ohio.
91,173.—STEAM GENERATOR.—E. B. Sintzenich, Rochester, N. Y.
91,174.—KNOB LATCH.—Thomas Slaight, Newark, N. J.
91,175.—MACHINERY FOR SEWING BOOKS.—David McConnell Smyth, Orange, N. J., assignor to Henry G. Thompson, New York city, and Reune Martin, Orange N. J.
91,176.—METHOD OF PREPARING BEEF, ETC.—Benj. F. Stephens, Brooklyn, N. Y.
91,177.—COMBINED SEEDER AND SOWER.—Orrin Stone, Ionia, Mich.
91,178.—MACHINE FOR WELDING AND CUTTING RAILROAD RAILS.—Joseph Stone (assignor to himself, C. S. Baum, M. T. Conro, E. W. Reynolds, and G. T. Thomas), Keeseville, N. Y.
91,179.—CARPET STRETCHER. — Thomas B. Stout, Keyport, N. J.
91,180.—DOOR BOLT.—Levi B. Swartz and James M. Opdycke, Lumberville, Pa.
91,181.—RAILWAY CAR BRAKE.—Benjamin Tatham and Joseph Steger, New York city.
91,182.—POTATO DIGGER.—DeWitt C. Thomas, Easton, N. Y.
91,183.—YOKE.—J. L. W. Townsend, Mount Blanco, Ohio.
91,184.—DOOR SPRING.—John L. Tucker, Laconia, N. H.
91,185.—SAWING MACHINE.—William P. Uhlinger, Philadelphia, Pa.
91,186.—COAL STOVE.—R. B. Varden, Uniontown, Md.
91,187.—ROCKER FOR CHAIRS AND CRADLES.—Charles Wetterhan, Fond Du Lac, Wis.
91,188.—LOCK NUT.—R. White, Mechanicsburg, Pa.
91,189.—HAT.—David Wilcox (assignor to himself, W. H. Slocum, and W. A. Brown), Boston, Mass.
91,190.—FIREPLACE.—Alfred Wilkin, Lucas county, Ohio.
91,191.—PRINTING PRESS.—J. K. Wright, Philadelphia, Pa.
91,192.—LANTERN.—Henry C. Yerby, Leslie, Mich.
91,193.—ELEVATOR.—James Yost, White Deer township, Pa.
91,194.—CAR COUPLING.—J. C. Young, Bloomington, Ind.
91,195.—LAMP.—Charles Zaiser, Newark, N. J.
91,196.—PROPELLING APPARATUS.—Anthony Zink, Lancaster, Ohio.

REISSUES.

33,085.—MACHINE FOR THRASHING AND SEPARATING GRAIN.—Dated April 16, 1861; reissue 3,486.—Cornelius Aultman, Mansfield, Ohio, assignee, by mesne assignments, of Cyrus Roberts.
48,214.—CASTER FOR TRUNKS.—Dated June 13, 1865; reissue 3,487.—John A. Lieb, Newark, N. J., for himself, and assignee of John Schamadel.
82,858.—PLOW.—Dated October 6, 1868; reissue 3,488.—Daniel Mater, Bellmore, Ind.
18,661.—MACHINE FOR TURNING PILLARS FOR CLOCK MOVEMENTS.—Dated November 17, 1857; reissue 3,489.—W. H. Nettleton, Bristol, Conn., assignee of Wilford H. Nettleton, Charles Raymond, and Anson Hatch.
46,025.—COMBINED CULTIVATOR AND HARROW.—Dated January 24, 1865; reissue 3,490.—Edmund D. Reynolds and O. Bradford Reynolds, North Bridgewater, Mass.
65,141.—TUCK-CREASING ATTACHMENT FOR SEWING MACHINE.—Dated May 28, 1867: reissue 3,491.—Anna Weissenborn, New York city.
50,351.—SUSPENDER.—Dated October 10, 1865; reissue 3,492.—Benjamin J. Greely, Boston, Mass.
11,249.—HARVESTER.—Dated July 11, 1854; extended seven years; reissue 3,493.—Division A.—J. H. Myers, Philadelphia, Pa., assignee of Collins B. Brown.
11,249.—HARVEST RAKE.—Dated July 11, 1854; extended seven years; reissue 3,494.—Division B.—J. H. Myers, Philadelphia, Pa., assignee of Collins B. Brown.
46,488.—HARVESTER.—Dated February 21, 1865; reissue No. 3,495.—Division A.—Frederick Nishwitz, Brooklyn, N. Y.
46,488.—HARVESTER.—Dated February 21, 1865; reissue 3,496.—Division B.—Frederick Nishwitz, Brooklyn, N. Y.
46,488.—HARVESTER.—Dated February 21, 1865; reissue 3,497.—Division C.—Frederick Nishwitz, Brooklyn, N. Y.
61,867.—REGULATOR FOR TIME PIECES.—Dated February 5, 1867; reissue 3,498.—George P. Reed, Boston, Mass.
71,418.—TELEGRAPH INSULATOR.—Dated November 26, 1867; reissue 3,499.—W. Edgar Simonds, Hartford, Conn.
12,568.—PRINTING PRESS.—Dated March 20, 1855; reissue 3,500.—Lemuel T. Wells, St, Louis, Mo.
58,098.—MACHINE FOR GRANULATING AND DRYING SUGAR.—Dated September 18, 1866; reissue 3,501.—Jesse Hanford, Lexington, Mass.

DESIGNS.

3,532.—COOK STOVE.—Daniel E. Conklin (assignor to Harbeck, Conklin, and Willis), Baltimore, Md.
3,533.—HINGE.—William Gorman (assignor to the Russell and Erwin Manufacturing Company), New Britain, Conn.
3,534.—FACE-PLATE OF A HINGE.—Emery Parker (assignor to the Russel and Erwin Manufacturing Company), New Britain, Conn.
3,535.—VELOCIPEDE FRAME.—S. F. Pratt, Boston, Mass.
3,536.—CLOCK CASE.—Solomon C. Spring (assignor to "Welch, Spring & Co.") ,Bristol, Conn.

EXTENSIONS.

WATER WHEEL.—John Tyler, West Lebanon, N. H.—Letters Patent No. 12 927, dated May 22, 1855.
GROOVING MOLDINGS.—Rebecca A. Marcher, New York city, executrix of Robert I. Marcher, deceased. Letters Patent of No. 12,916, dated May 22, 1855.
MACHINE FOR MAKING PAPER BAGS.—E. W. Goodale, Clinton, Iowa.—Letters Patent No. 12,945, dated May 29, 1855; reissue No. 1,023, dated September 4, 1860.
MACHINE FOR PEGGING BOOTS AND SHOES.—An act for the relief of Alpheus C. Gallahue, New York city.—Letters Patent No. 0,947, dated August 10, 1865; antedated February 15, 1858.

Improved Carpet Fastener and Stretcher.

One of the most trying tasks to tidy housekeepers, is that of putting down carpets. It is not merely the labor required, though that is very severe, but to get a carpet uniformly stretched, so that the figures shall not be distorted, was, by the old method, a difficult if not a wholly impossible attainment.

The invention which forms the subject of the present article discards the old method of fastening carpets with tacks, and employs a stretcher of light and portable form, and of great efficiency.

The method of applying this stretcher to work is shown in Fig 1. It will be seen that instead of being obliged to stand

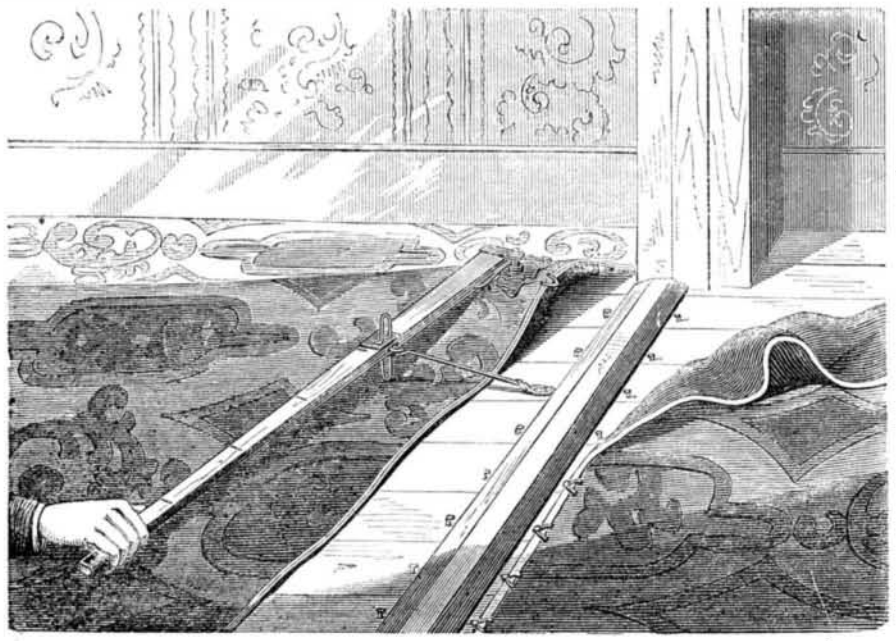


Fig. 3

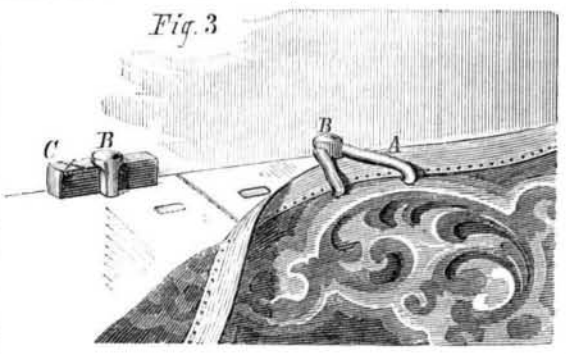
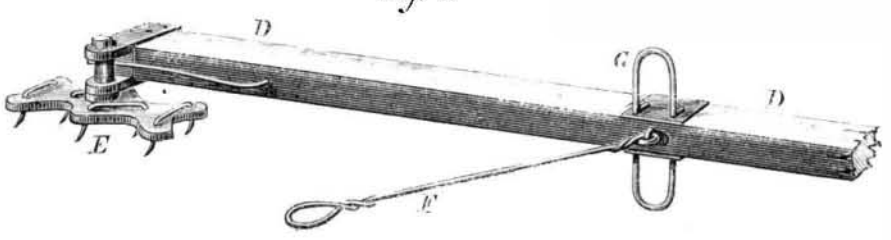


Fig. 4

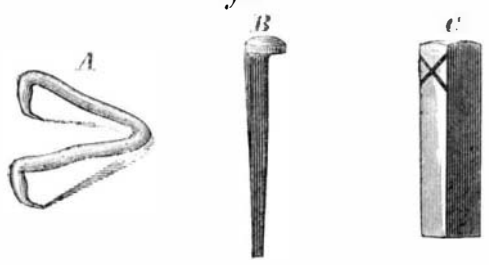


WEAVER'S CARPET STRETCHER AND FASTENER.

upon the portion of carpet which it is desired to stretch, as in the old method, this stretcher permits the placing of the body to one side of the work, and the raising of the carpet from the floor while being extended. thus stretching the carpet entirely across the floor unobstructed by friction upon the boards.

The carpet is held by double-hooked wire loops, A, Figs. 2 and 3. Tho hooks are inserted in the carpet just inside the hem, or through the margin on the unhemmed sides, and are looped over nails headed only on one side, the form of which and their manner of insertion into the floor is shown at B in Figs. 2 and 3. A metallic gage, C, Figs. 2 and 3, being placed between the nails and the washboard in driving serves to secure a uniform distance from the washboard, and hight from the floor. The hook, nail, and gage are shown full sized in the engravings.

Fig. 2



The construction of the stretcher and its application are well shown in Figs. 1 and 4. D, Fig. 4, is a portion of the wooden bar, or lever, which is made about three feet in length. E is a flat plate of cast iron, with double wire hooks inserted to engage with the fabric when in use. This plate is pivoted to a clip passing around the end of the lever, D, and from which it may be removed by depressing a spring, and put in from the opposite side so that the lever may be worked either with the right or left hand, as may be desired. F is a looped wire, which, when placed over the head of one of the nails forms a fulcrum for the lever, D. A strong bent wire, G, forms a fulcrum on the top and the bottom sides of the lever, D, so that as the carpet is stretched by pulling back the lever, it may at the same time be raised from the floor by pressing the end grasped by the hand toward the floor.

Thus the nails may all be uniformly driven first, and the carpet neatly and expeditiously extended and fastened to them by the aid of the stretcher and the hooks.

It is entirely superfluous to dwell upon the superiority of this method of laying carpets, or the saving of time and backache and temper effected by it. These facts will at once become evident to even the most unpractical reader.

The hook and nail fastening was patented by Willis Weaver, of Salem, Ohio, October 13, 1866, and that on the carpet stretcher April 13th, 1867, by the same. Both patents were obtained through the Scientific American Patent Agency.

Communications may be addressed to the inventor as above.

WE presume that none of our readers will fail to notice the somewhat conspicuous advertisement of the American Saw Company, which appears in this number. We tried to persuade this enterprising company that a less prominent advertisement would answer their purpose just as well, but they would not listen to our advice, therefore we felt obliged to surrender to their exorbitant demands. It is a costly advertisement, but it pays to advertise a good article.

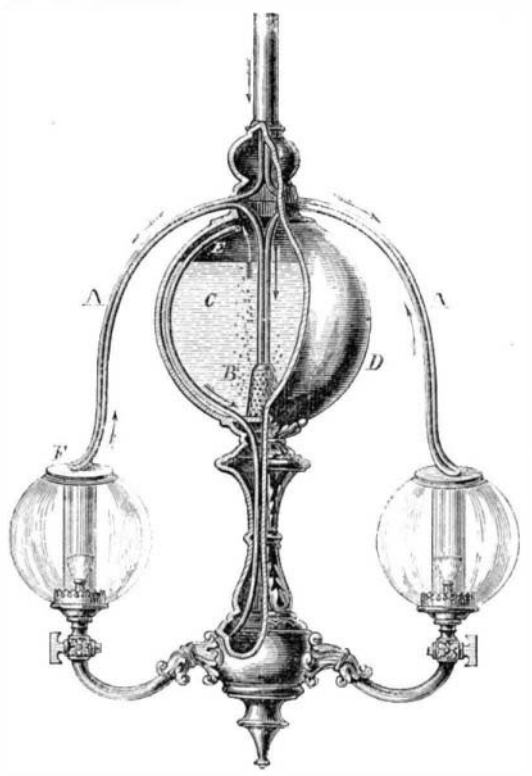
The Attorney General's Decision upon Patent Fees.

Attorney General Hoar has given a decision which reverses the action of the Patent Office, under Commissioner Foote, in relation to appeals taken from the decision of the Commissioner to the Judges of the Supreme Court of the District. Under the eleventh section of the act of March 3, 1839, a fee of $25 was fixed to be paid into the Patent Office Fund, and by the office to the court when the appeal was carried there.

By the act of March 2, 1862, all laws fixing the rate of Patent Office fees to be paid were repealed, and a new list of rates was established. In this list no mention was made of this $25 charge for an appeal to court, and Commissioner Foote held that the law was consequently repealed, and refused to receive any fee upon such appeals. The Attorney General decides that the fee is properly chargeable on the general ground that it is a court fee, and that the Patent Office is simply the temporary custodian of the money.

IMPROVED AIR CARBURETER OR GAS CHANDELIER APPARATUS.

The obstacles which have hitherto prevented large success in many of the numerous devices for charging air with the vapors of light fluid hydrocarbons have chiefly arisen from the liability of such vapors to condense at low temperatures and obstruct the pipes used to convey the mixed air and vapors to the burners, and also the small amount of such vapors absorbed by air in cold weather. To obviate the latter difficulty, heaters have been employed, but the liability to condense, still remains.



The invention we now are called upon to describe, seems to have surmounted both the above named obstacles. Although the engraving which illustrates the device is that of a chandelier, the invention is equally applicable to a bracket, or any other style in which the ordinary gas burners are mounted. The principle of its operation is exceedingly simple.

A is a pipe through which pure air is forced by means of the reversed motion of a common wet gas-meter impelled by a weight and the necessary gearing. This pipe is so formed that the air in its passage is brought directly over the burner at the bend of the pipe and heated thereby. It then passes on and issues in small streams through the perforations at B, and rises thus finely divided through a stratum, C, of fluid hydrocarbon contained in an air-tight vessel, D. Thus volatilizing the fluid and becoming charged with its vapor, it passes into the open mouth of another tube, E, rising above the level of the fluid in D, and so on to the burner.

When argand burners are used, disks of mica, F, are attached to the tube, A, at the bend directly over the burner and brought down to about one eighth of an inch from the tops of the chimneys. The inventor claims that this arrangement stops the rapid draft of air in the chimney, and enables the incandescent carbon which is the light giving agent in all flames, to remain longer in a state of incandescence, thereby rendering the flame larger and increasing its luminosity. In the ordinary bracket these disks are not used. Instead, the pipes are formed into an ornamental knot at the point where they turn over the burner. The pipes are furnished with wire gauze between the liquid and the burner to prevent any chance of the flame running back.

The inventor assures us that gas can be made by this process at a cost of 75 cents per 1,000 cubic feet and of a light giving quality far superior to coal gas, and as the liquid is confined completely from contact with surrounding atmosphere in the process is perfectly safe.

Country houses can, by having their chandeliers constructed on this principle, make their own gas and without the use of an expensive gas machine.

The same method seems equally applicable to the enriching of ordinary gas; and probably a considerable saving might be made by its use in rural towns where gas works are small the price high, and the quality of the gas furnished none of the best. Patented through the Scientific American Patent Agency May 25, 1869.

Further information may be had by addressing C. F. Dunderdale, 90 Wall street, N. Y., from whom County and State rights may be obtained.

Pacific Railroad Time Table.

The following statement of time and distances is given by the *Western Railroad Gazette:*

	Miles.	Hours.
New York to Chicago, Ill.	911	36½
Chicago to Omaha, Nebraska	491	24½
Omaha to Bryan	858	43
Bryan to Ogden, Utah	283	10⅝
Ogden to Elko, Nevada, via Central Pacific R. R.	278	12½
Elko to Sacramento, Cal., via Central Pacific R. R.	465	31
Sacramento to San Francisco, via Western Pacific R. R.	117	3½
	3,353	161½

Thus a total distance of 3,353 miles is made, according to the present schedule time, in 6 days and 17½ hours, actual time, by a traveler's watch, from which we deduct 3½ hours, difference of time, when going West, leaving the apparent time consumed in making the trip 6 days and 14 hours.

At San Francisco the mails will connect with the various steamship lines running on the Pacific, and may be landed at Honolulu in 9 days from that city, or 15½ days from New York. They can reach Japan in 19 days from San Francisco, or 25½ days from New York, or 33 to 34 days from Great Britain—thus beating the British mails sent via Suez, three to four weeks. The trip between Yokohama, Japan, and either Hong Kong or Shanghai, is readily accomplished by the Pacific Mail steamships in from five to six days, which, added to the time in reaching Japan, will give the through time necessary to reach either of the above-named ports of China.

The mails for Australia, it is thought, will hereafter go via San Francisco, as the Australian and New Zealand Steamship Company intend transferring the terminus of their line, which has been running from Sydney to Panama, so as hereafter to run from Australia to Taluti, thence to Honolulu, and thence to San Francisco, making 28 days schedule time, which will give us monthly mail to Australia in 34 or 35 days through time.

Important Decision about Patents--Rejected Cases.

The Commissioner of Patents, Hon. S. S. Fisher, has made an important decision, involving a point of much interest to a large class of inventors, as well as to the public generally. Prior to the act of March 2, 1861, rejected applicants were permitted by law to withdraw their applications, and receive back two thirds of the fee. This practice was abolished by the act referred to. Many inventors now seek to revive these applications, claiming that the rejection was through the faulty or imperfect consideration of the Bureau, and hoping for better success under a changed administration. In many cases numerous patents touching these same inventions, or points therein, have since been granted, which could only be regarded as infringements, if the rejected application was to be reopened and granted as an original case. The Commissioner has heretofore decided that when an application is not renewed within two years after withdrawal, its continuity is broken, The decision, which is a very able one, is printed in full in another column.

A STUFFED cat, placed upon strawberry beds, is said to effectually drive away birds.