

CUTTING GLASS.—Take an old three-cornered file, heat it red hot and suddenly plunge it into a previously prepared mixture of salt and ice, stirring it about so as to cool as rapidly as possible.

CHLOROCARBON, the new anaesthetic of Dr. Protheroe Smith, is a tetrachloride, or as it used to be called, bichloride of carbon. Although powerful and rapid in its effects, consciousness is rapidly restored after its use.

IS SWEDEN A RISING NATION?—Sir Charles Lyell, thirty-two years ago, from an examination of some ancient sea marks on the Swedish coast, concluded that the peninsula was rising at the rate of three feet a century.

CARRIER PIGEONS lately traveled the distance between Brussels and Cologne, one hundred and ten miles, in from three to five hours. One bird flew thirty-seven miles, another twenty-two, and others twenty miles per hour.

BEER VERSUS BREAD.—The amount of nutriment contained in beer is generally greatly over estimated. Liebig asserts that in 1,460 quarts of the best Bavarian beer, there is exactly the nourishment of an ordinary two and a half pound loaf of bread.

THE NIAGARA SUSPENSION BRIDGE.—Ever since the middle of March, 1855, from thirty to forty railway trains have passed over the Niagara Bridge daily. With the exception of the removal of the timber girders, and some other wooden parts which showed signs of decay, no part of the suspended system has ever been disturbed.

ANOTHER NEW FIBER.—By a late patent, a species of nettle, which grows luxuriantly and spontaneously throughout the Mississippi valley, is employed in the manufacture of cord, rope, cloth, bagging and paper.

FISH BISCUIT.—Professor Rosing, of Asa, France, has invented a process of making flour from a species of sea fish, which he forms into biscuit, thereby providing a very nutritious and compact article of food.

LECTURES AT THE PARIS EXHIBITION.—The Imperial Commissioners have made arrangements for the delivery of a course of lectures, at various places within the buildings and grounds, on various subjects, such as caoutchouc, artificial ice, iron smelting, brass founding, and other kindred themes, connected with the mechanical and art displays in the Exposition.

AN INEXHAUSTIBLE ICE HOUSE.—A company has been formed in France for supplying towns in the southern provinces with ice from the sides of Savoy Alps. The glacier ice is loaded on vehicles at the foot of the mountains, transported to Geneva and thence by rail to its destination.

WE are indebted to Mr. H. T. Anthony, 501 Broadway, N. Y., for samples of Lithographic paper, from Paris, which we find excellent for printing photographic pictures.

J. H. HALL, 102 Fourth Avenue New York, cured by his patent process, for one man in Cincinnati last year 11,000 dozen eggs. They were so well preserved that the dealer sold them in February as fresh eggs.

MESSRS. NOTMAN & Co., of Boston, Mass., have sent us some photographic cards which indicate excellent skill in portraiture.

National Academy of Science.

This association held its semi-annual session in Hartford, Conn., during the past week. A report of their proceedings, which we had prepared, is crowded out of this issue by other matter, but will appear next week.

Patent Report for 1867.

We are glad to learn that the contract for engraving the diagrams for the Patent Report for 1867 has been awarded to Messrs. E. R. Jewett & Co., Buffalo, N. Y., whose excellent work has for many years adorned these important volumes.

Distances from San Francisco to New York.

THE CENTRAL PACIFIC RAILROAD ROUTE.

The following complete table of distances and elevations of points on the Central Pacific Railroad of California, and other roads connecting therewith, between San Francisco and New York, is useful for reference.

Table with columns: Names of Places, Distance from point to point, Total distance, Elevation in feet, Names of Places, Distance from point to point, Total distance, Elevation in feet. Lists various points along the route from San Francisco to New York.

MANUFACTURING, MINING, AND RAILROAD ITEMS.

The oldest mills in Pennsylvania are in the quaint old town of Bethlehem Pa., built by the Moravians in 1793, and are now in good running order.

A stationary engine of 500 horse power is being built in Newburgh, Cuyahoga Co., Ohio. This, the largest stationary engine in the Western States, is the property of the Cleveland Rolling Mill company.

Large importations from Belgium are annually made of rough plate glass, there being hitherto, a lack of suitable apparatus for manufacturing the article in this country.

The salt springs of New York produce nearly 7,000,000 bushels of salt per year. The wells are owned and worked by the State, the water being purchased for evaporation by private parties.

The work of changing the North Missouri railroad from a broad to a narrow gage, for a distance of one hundred and seventy miles, to Macon, was finished in four days. Quick work.

The Viceroy of Egypt is said to be the owner of more than one hundred steam plows. We would like to get drawings of them for publication.

Ransom's concrete stone, is to be manufactured in this country by a joint stock company of Baltimore. The process of making this artificial stone is simple enough.

The Montana people are congratulating themselves over the discovery of genuine sapphires in that territory. The precious stones found on the El Dorado Bar, are familiarly known in that locality by the name of "Collin's diamonds"

The largest dye-house in America is about to commence operations in Paterson, N. J. Its appointments are on a very extensive scale and all its arrangements have been made under the direction of a French gentleman.

An exceedingly rich bed of oinnabar has been discovered about four miles south of San Jose, Cal. There is a solid ledge about twelve feet wide and eight feet thick, between walls of rock, which grows richer as the excavation proceeds.

A sudden reduction has been made in the working force at the Springfield Armory, in consequence of an order to reduce the production of breech-loaders to two hundred a day.

A train on the New York Central Railroad ran from Spencerport to Rochester, a distance of 10 miles, the other night, in 9 minutes.

The net profits of the Anglo-American Telegraph company for the eleven months ending on the first ult., was more than sufficient to meet the sums of \$125,000 and \$25,000 payable to the company as a first charge upon the working of the two cables and the lines of the New York Newfoundland and London Telegraph company.

Natural soap, it is again announced, has been discovered in Missouri some sixty miles from St. Louis. What has been really found, is probably "fullers earth" a variety of clay which from its unctuous touch might easily be mistaken for soap.

The Mount Cenis railway is to be forty-eight miles long. The initial point on the French side is 2,438 feet, and the summit of the pass, 6,322 feet above sea level. For six miles before reaching the summit the ascent must be on an average gradient of 1 in 14.

The largest iron works in the country are located at Johnstown, Pa. The works are run day and night and give employment to 3,000 hands.

Steel boilers, it is said, are coming into use on French locomotives. Twelve express engines, with steel boilers, are employed on one railway leading out of Paris, fifteen on another, and several on other roads.

The entire tankage capacity of Oil City, nearly 200,000 barrels of oil, is awaiting a rise in the river for transportation to Pittsburgh.

The new bridge at Louisville, Ky., is to be 5,220 feet, or nearly one mile in length. The longest span will be 360 feet, thirty-six feet longer than the longest span of the Montreal "Victoria bridge."

The Anglo-Indian Telegraph company propose to build a direct telegraph line, via Egypt and Aden, with subsequent extensions to Singapore, China, Japan and Australia. The direct route from London to Suez will, it is anticipated, be in actual work during the present year.

It is found necessary on some railways having numerous short curves, to have the flanges of the driving wheels of the ordinary 6 wheeled engines turned anew as often as every six weeks.

For the past three years, \$4,000,000 worth of boots and shoes have been shipped annually from Worcester, Mass. This business gives employment to 2,000 hands in the city, and as many more in the neighboring villages.

Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the more prominent home and foreign patents.

LATHES.—S. L. Hart, Milwaukee, Wis.—This invention has for its object to furnish an improved device for attachment to lathes for the purpose of cupping the ends of wagon hubs, turning the interior of hollow wooden ware, and for similar uses.

BON SLEIGH.—G. O. Momeny, Locust Point, Ohio.—This invention has for its object to furnish a bob sleigh, or other sleigh or sled so constructed as to adapt it to all kinds of roads, and to enable the beams and raves of the sleigh to be readily removed from the knees and runners for convenience in storage, making the sleigh limber, strong, and durable.

OX YOKE.—W. A. Thompson, West Winsted, Conn.—This invention has for its object to so improve the construction of ox yokes as to diminish their weight and increase their strength and durability.

BEDSTEAD FASTENING.—L. L. Jackson, Paterson, N. J.—This invention has for its object to furnish an improved bedstead fastening, simple in construction, reliable in operation and which will enable the bedstead to be easily and quickly set up and taken down.

SNAP HOOK.—W. S. Furlow, Geneseo, Ill.—This invention has for its object to furnish an improved snaphook simple in construction, not liable to get out of order, not liable to freeze up in cold weather, and which can be manufactured at a small expense.

AERIAL MACHINE.—J. F. Elston, Elston Station, Mo.—This invention has for its object to furnish an improved machine for navigating the air so constructed and arranged as to be completely under the control of the navigator.

FOUNTAIN PEN HOLDER.—J. S. Charles, Omaha, Nebraska.—This fountain pen holder is made in two parts, arranged to move the one within the other, and relatively so constructed that the ink can be drawn in at one end, and from the other discharged and expelled upon the pen, attached or inserted at such end.

WELL SEED BAGS.—A. D. Griffin, Meridith, Pa.—This invention relates to a method for closing the bore of an oil, artesian, or other well, and thereby stopping off the surface or other water, during the process of boring or working the said wells.

OX YOKE.—C. H. Post, Guilford, Conn.—This invention consists in attaching a hinged metallic plate to the yoke, the end of which engages with the bow in such a manner that the bow is securely fastened thereby.

OX COLLARS.—Jackson Robinson, Curwinstown, Pa.—This invention consists in supporting and moving the steering oar on metallic surfaces whereby the friction is greatly lessened, and the management of the steering or rudder oar is rendered much less difficult, and consequently the raft is much more easily managed than by the old method.

RADIATORS.—J. A. Marvin, Red Wing, Minn.—This invention consists in forming the flue through which the products of combustion pass, in such a manner that the heat from the stove is compelled to travel a long distance and be retarded in its course and radiated from the surface of the flues and the casing utilized.

WATCHES.—Thos. Baker, New York City.—This invention relates to that class of watches, which are provided with an arrangement of mechanism, for stopping and setting free the second hand, or the hand for indicating half, quarter, or any other fractional parts of a second.

COMBINED BUREAU AND BEDSTEAD.—John Stark, El Paso, Ill.—The present invention consists in so constructing a bureau, in such a manner, and in parts hinged or hung together, that they can be opened from each other and brought into a horizontal position for use as an ordinary bedstead, while at the same time, if so desired, they can be brought into an upright position and shut the one upon the other, forming a bureau, to all appearances, with the mattresses and other articles constituting the bedding, encased within the same.

SNAP-HOOK.—M. F. Mitchell, Waukau, Wis.—This snap-hook is so constructed as to be most durable and substantial, and most convenient and serviceable.

LUBRICATOR.—R. P. Underwood, Brooklyn, N. Y.—This lubricator is for the spindles and shafts of machinery, and is more especially intended for cotton and spinning machinery.

HOLDER FOR REINS.—Phineas Jones, Newark, N. J.—The object of this invention is to provide a simple device, whereby harness reins may be securely held, and whereby they will effectually be prevented from slipping out of the hand.

SPRING MATTRESSES.—Henry H. Vere, New York City.—The object of this invention is to so arrange and hold spiral springs in mattresses that the durability of the mattress will be increased, and to do away with the wooden frames now generally used in spring mattresses, that the mattresses may be easily handled, and may be reversed and used on both sides.

CALCULATING MACHINE.—A. Mendenhall, Cerro Gordo, Ind.—The object of this invention consists in constructing a machine by which figures of any desired magnitude may be readily added, subtracted, multiplied and divided.

STOP ATTACHMENT FOR REGULATING THE LENGTH OF STITCH IN SEWING MACHINES.—George Robinson, Detroit, Mich.—This invention relates to a new and improved attachment for sewing machines, more especially designed for the Wheeler and Wilson machine, whereby the length of stitch may be regulated or varied as desired, with far greater accuracy and facility than by the ordinary cam attachment now used for that purpose.