

Heretofore sketching blocks have been made of a series of detached sheets united at the edges by a strip of paper or muslin, which sheets are successively cut from the block and loosened after the completion of the sketch for the purpose of laying bare the next sheet; but these detached sketches are easily lost and mislaid, and are very apt to become soiled and damaged. Mr. Charles R. Lamb, of New York city, has patented a sketch-block in which the completed sketches need not be entirely detachable to lay bare the next lower sheet.

Messrs. Louis R. Sassinet and Max L. C. Huet, of New Orleans, La., have patented an improved portable furnace, which is light, strong, and durable. The improvement consists in a portable furnace formed of a cylindrical or square metal box containing a basket for the burning fuel, which basket is provided with a series of hooks, which are hooked on the edge of the exterior vessel.

Mr. Henry F. Childers, of Elsberry, Mo., has patented an improvement in newspaper files, in which bars or rods and locking and pointed holding screws are used to hold the papers in place, one of the locking screws being provided with a nut and forming a pivot for the one bar to turn upon when entering or removing a paper. By this improvement a paper can be filed with little trouble. The loosening of a nut and moving aside of a bar prepare the file for the reception of a paper, which, when placed on the file, is secured by the reverse movements of the nut and bar. The bar or rod also protects the points that secure the paper in its place, so that the points cannot possibly tear holes in or mutilate a paper when it is desired to turn from one paper to another.

Mr. Charles D. Jaques, of Curtisville, Mass., has patented a horse-tail tie. The object of the invention is to provide a device by means of which horses' tails, after they have been braided or twisted and folded, may be easily and quickly secured for holding and protecting them from mud. The invention consists of a divided ring or clasp, which, after the tail of the horse has been braided and folded or twisted and folded, is opened and placed around the tail. This clasp is formed with a slot in its back to receive a binding cord that not only serves to bind the tail securely, but also, by engaging with projections on the face of the clasp, to prevent loss of the clasp, which may if desired be provided with a button catch.

Mr. Henry S. Northrop, of Pittsburg, Pa., has patented an improved metallic roofing shingle. This invention relates to sheet metal shingles which are to be secured to the roofs of buildings with nails or similar fastenings. The shingles are of such form that in laying them the edges may be united to form a water-tight joint without the labor of seaming, and the shingles fastened to the roof in such manner that the nail heads will not be exposed to the weather.

An improved steam cooker has been patented by Mr. Thomas F. Dean, of Boston, Mass. The invention consists in a suitable vessel of cylindrical or other form, provided near its mouth with a V-shaped water ring, one edge of which is united with the upper edge of the vessel, the bottom of this V-shaped ring resting upon a bead projecting from the vessel. This vessel is provided with a conical cover, a sieve, or perforated disk for receiving the articles to be cooked, with a water filling tube, with an exhaust tube for carrying off the odor of the articles being cooked, and with a small pane of glass or mica, that is inserted in the side of the boiler to show the condition of the contents or height of the water.

A new and improved waist of waterproof material, for the purpose of protecting the dress from being soiled or discolored by perspiration, has been patented by Emma R. Turner, of Watska, Ill.

Messrs. Olof Johnson and Johan J. Sandström, of Algona, Iowa, have patented an improved mould for forming the walls of cisterns or wells. In using this apparatus the hole for the cistern or well is made somewhat larger than the required diameter when finished. The mould is then placed in position in the hole and the cement or plaster is poured around it. When said cement or plaster is sufficiently hard and "set" the mould is removed by either separating the sections or by simply releasing the latches, so that the dome and the cylinder may be rolled or folded.

An improved placer worker and concentrator has been patented by Mr. Robert Barber, of Omaha, Neb. This invention relates to that class of apparatus used in placer mining whereby the ores or tailings are disintegrated, sifted, and washed preparatory to an amalgamating process.

#### The Durability of Redwood.

Mention was made in a recent issue of this paper of the suitability of redwood for wine casks. Messrs. Fulda Brothers, of San Francisco, tell us that redwood casks have been used in California for many years; indeed, two-thirds of the vast wine crop of that State is fermented and stored in casks and tanks made of this timber. The casks simply require to be slightly steamed and well soaked to remove the color; after that the fermentation of the wine does not extract any color or taste.

The trade in redwood is becoming of considerable importance, a great deal being shipped eastward to Denver, Omaha, Kansas City, and the Atlantic coast as far as Rhode Island.

The wood is specially valuable in situations which occasion rapid decay in other timber. Seventy years ago the Russian Fur Company erected a redwood stockade at Fort Ross, Alaska. The posts were cut down level with the

ground some years ago, but the buried parts remain perfectly sound, excepting the thin layer of sapwood near the bark, the alternate soaking and drying of seventy years having no injurious effect upon the heart wood. A piece of one of the posts, with a certified statement of its history, was sent to San Francisco a few weeks ago. The sender, Mr. G. W. Coll, of Fort Ross, states that he knows of shoots from old stumps which have grown to be three or four feet in diameter in forty years, indicating a hopeful restorative power in redwood forests under favorable conditions.

The redwood in demand in California for underground uses is what is known by the lumbermen as "black-heart redwood." It shows a dark color when cut with a knife, the outer layer only becoming "seasoned." "Black heart" is exceedingly heavy—too heavy to float. One who has observed schooner-loading at chutes along the coast tells the *Pacific Rural Press* that a post of this wood which plunges overboard never rises, and a board lingers on the surface a moment and then slowly slides down into the depths. This is the sort which is sought for in foundations, and under brick walls is believed to be imperishable.

#### Self-Propelling Fire Engines.

At the recent convention of the Massachusetts State Firemen's Convention, held in Springfield, Mass., beginning on the 11th of October, a self-propelling fire engine from Hartford, Conn., was exhibited and greatly astonished many people. The *Fireman's Journal* says:

"It steamed around the City Hall Square twice, the last time in fifty seconds, and then the engine was reversed and run backward. Afterward it ran up grade of half a mile or more at a fast rate, belching smoke and sparks high in the air. . . . The plaudits of the crowd were more than ever called forth when the engine, while coming rapidly down the steepest grade, was stopped suddenly, backed a trifle, and then sent down the hill again."

A Hartford letter to the *Journal*, speaking of this exhibition, is more explicit. It says:

"Her first exhibition of ascension was at Armory Hill, where her performances completely annihilated the doubting Thomases. She carried 110 pounds of steam, and blew off when she topped the hill. The parade lasted a couple of hours, and in the afternoon thousands of people turned out to see her go around Court Square. At a given signal, and with 110 pounds of steam, she went away and made the circuit in handsome style. A horse car impeded her travel slightly at one corner, so she 'continued the march' and made the second circuit in forty-eight seconds—a quarter mile trip with four corners to turn. Then she went up and down a straight stretch in front of City Hall, forward and reversed, and was loudly applauded. Next she went to Harrison avenue, where there is a hill with a grade of seventeen feet to the hundred. Her new-made friends lacked confidence there, but only for a moment. At the word of command up the hill she went, and had a hundred pounds of steam when she landed. Then, by orders, she rolled down to the center of the hill, stopped, went back a few feet, and then to the foot of the hill. Then she reversed, and backed up the hill, came down, went to the head of the street and turned about, speeded through again, turned about, and was dismissed."

This engine is called first-class, having two  $7\frac{3}{8}$  inch steam and two  $4\frac{1}{4}$  inch water cylinders; 8 inch stroke of pistons. It is designated as No. 7 Blake, and has been in service since March, 1876, in Hartford, where its practical performances have been greatly admired.

There has been much prejudice among firemen against self-propellers, because they have, it is said, to be carefully watched and handled, requiring trained men to operate them. But the success of this sample, together with that of No. 4, in the same city's service, which has smaller steam cylinders, with the same sized pumps, having the same stroke, and which was put in service in June, 1879, seems to demonstrate the entire practicability of this improved system of fire extinguishers.

#### Fast Trains to the West and South.

The Pennsylvania Railroad Company began, October 31, the experiment of running a special passenger train from this city to Chicago, stopping only at Harrisburg, Pittsburg, and Fort Wayne. The trip is made in twenty-six hours—ten hours less than the best time heretofore.

Arrangements have been made for a rival train on the New York Central, which began running November 5. It leaves New York at eight o'clock in the morning, and is due in Chicago at five minutes past nine the following morning. The distance by the Pennsylvania route is 918 miles; by the New York Central, Lake Shore and Michigan Southern, 979 miles.

The saving of time by the fast trains makes it possible for mails to reach San Francisco thirty-two hours earlier than heretofore, and the intermediate points are correspondingly benefited. Connection with the fast train on the New York Central is made at Albany by a train leaving Boston at 6 P.M., making the time from Boston to Chicago about twenty-seven hours.

A fast mail service has just been established between New York and Jacksonville, Florida. The mail leaves New York at 4:35 A.M., and arrives in Jacksonville the following day at 6:20 P.M. Included in this service is a mail for Atlanta, Ga., which reaches that city at 10:35 A.M. the day after leaving New York.

#### Correspondence.

##### Steam Buggies.

To the Editor of the *Scientific American*:

It seems strange to me that the subject of steam buggies has not received more of the attention of the mechanical public. The advantages of such conveyances would be many and very desirable. It need not or would not cost any more or so much as animal propulsion, when the entire cost of buggy, horse, and harness is considered.

The wear and tear would not exceed the same or equal it when the same entire present rig is considered.

The cost of feed would not be equalled by that of the small quantity of fuel consumed.

The wages of groom or stable boy would be saved, as no attention would be necessary scarcely, except when under way.

The only other requirements would be to keep up the supply of water for the boiler and of liquid fuel and keeping the machinery oiled. The machinery could be painted and nickel-plated, so that nothing more than wiping would be necessary.

The suburban resident, going to or from the city, could run his little steam buggy into his buggy shed, turn off his supply of liquid fuel, and leave it with no dread that his trusted and valuable horse may not be properly fed and cared for, or, when turning down his flame and locking up his engine on making a stop, that on reappearing his horse may have frightened and run away, injuring himself and destroying buggy and harness.

The advantages of a steam buggy over our present horse and buggy are many, and you can no doubt enumerate more of them and clothe them in better language than I have done, as well as point out what inherent disadvantages such a vehicle and mode of propulsion would have or be likely to have.

I (and no doubt many others of your subscribers) would like very much to have you devote an article to this subject, pointing out the essentials or leading points in such a conveyance, and directing the attention of manufacturers of small engines or carriage manufacturers, who could experiment easily and inexpensively in this field to this very promising subject.

It would be necessary for you to discuss the grades and kinds of pavements or roadways that could be overcome by such a vehicle, in what way the power could be most simply generated and efficiently applied to the buggy, etc.

It seems to me that benzine will be found the most suitable fuel, burned in a gas pipe burner pierced with fine holes, as it is now in use for other heating purposes. On turning a cock the benzine burns at all these fine holes and heats the burner, so that the fluid is forced back by the vapor generated, and which, escaping under the consequent pressure, burns like a gas flame and very economically.

Also I think the power should be conveyed to the driving axle or wheels by a suitable chain, to avoid slip and be reliable.

The weight of boiler, engine, and connections, together with the load, should bear on the hind or driving wheels, and one wheel only in front would be necessary to steer or guide the conveyance.

I think an upright tubular boiler, in which steam could be raised and generated quickly, and in large quantity for its size and weight, would be most suitable.

W. C. K.

The mechanical difficulties that have prevented the use of steam on common roads have by this time come to be fully appreciated by practical men, and they do not appear to be formidable or numerous, especially so since liquid fuel, high steam, and small powerful generators have taken practical shape. The adhesion of a pair of driving wheels that sustain a considerable portion of the load has been repeatedly shown to be sufficient for all practicable road grades. The link motion seems to fulfill the requirements of increased power at starting. The noise and smoke tending to frighten horses that are met on the road have been mastered, so that a well-trained horse pays little attention to steam carriages, even when seen for the first time.

It seems, therefore, that this field is an inviting one for the inventor, and that our correspondent's points are well made. The weight of the complete steam buggy in the present state of engineering and carriage building arts need not now remain as so great an objection as formerly. Steel, aluminum bronze, and high steam are capable of greatly reducing the avoirdupois of a horse power in the steam engine.

#### The Fontaine Locomotive.

To the Editor of the *Scientific American*:

In recent numbers of your paper are drawings of the Fontaine locomotive and detailed descriptions of it. The inventor claims that there is a great gain in the application of the power by the intervention of what is equivalent to gearing between the engine and the rolling wheels. I do not gainsay this; indeed, I think he is right. But what I wish to suggest is this: that if there is a gain in the case of a locomotive there would be an equal advantage in using the same intervention between the engine and the wheels of a sidewheel steamer.

The wheels of a steamer may be regarded as rolling over a plane from two to four feet below the surface of the water. Therefore the conditions between the engine and wheels are

about similar. If there is a gain in the application of power by the Fontaine plan, there would also be a gain by applying it on sidewheel steamers.

It seems to me, however, that if Mr. Fontaine would lower his drivers, if possible, the machine would vibrate less. Place them, if possible, so that their peripheries would be not more than nine inches off the track.

Let some experts give us some information on the above ideas.

SOTOR.

New Orleans, November, 1881.

**Fast Locomotion.**

To the Editor of the Scientific American :

There seems to be a great desire to have high speed locomotives. It has occurred to the writer that by combining two or more pistons on one rod, or two or more cylinders with one piston rod passing through both cylinders, in this way shorten the stroke of the pistons one half, and make up the loss of travel of piston by having double the amount of piston surface. In this way you would greatly lessen the vibration of the moving parts of the engine, and be able greatly to increase the revolutions of the drivers. As all the working parts are traveling one half the time and distance, but under a double piston pressure, I think the speed of an engine built in this way could be greatly increased without any detriment to the machinery, and accomplish what the Fontaine engine does.

W. B. DUNNING.

Geneva, N. Y., November, 1881.

**The Stormy Petrel, or Mother Carey's Chicken.**

To the Editor of the Scientific American :

Reading your valuable paper under date of November 27, 1880, in giving the history of the bird stormy petrel, known to us mariners as Mother Carey's chicken, you state it is believed it does not dive. Please allow me to correct that by saying it is one of the greatest diving birds in sea water known, the kingfisher excepted. I have seen fifty to one hundred of them at a time diving six to seven feet after pieces of beef that were thrown overboard to them.

JNO. T. HOLT,

Commanding ship David Stewart.

Ship David Stewart, at sea from Rio de Janeiro, bound to Baltimore, Md., October, 1881.

**Note on the Humid Assay for Silver.**

To the Editor of the Scientific American :

In making the humid assay for silver a great deal of time is necessarily spent in waiting for the suspended chloride to settle and leave the liquid clear to observe the action of the next drop of the precipitate to greater with the solution has been previously heated. I have reduced the loss of time and insured greater facility in making an assay, by dividing the solution (containing the silver) into several, say, five equal parts, in separate vessels. I place them in a row, and add, say, 3 c.c. of the solution of salt to the first, 4 c.c. to the next, 5 c.c. to the next, and so on. After the precipitate has subsided I add, say, one-half c.c. of the same solution to each of the several parts of the silver solution, successively. Numbers one, two, and three will perhaps show traces of silver still in solution, but numbers four and five none. The total amount precipitated from number three multiplied by five (as it represents only one-fifth of the original solution of silver) will be the amount of silver contained in the ore or alloy being assayed.

A simple means of settling the precipitated chloride almost instantaneously is to agitate the solution with a few drops of chloroform. Its action seems to be entirely mechanical. The agitation disperses the chloroform in minute globules throughout the silver solution, which in settling to the bottom carries with it every particle of the chloride.

A. P. WHITTELL, M.D.

San Francisco, Cal., October 16, 1881.

**Brooks' Periodic Comet.**

I have, with much pleasure, just received from Prof. S. C. Chandler, Jr., of Harvard Observatory, the following interesting announcement concerning the comet discovered by me on October 4, 1881:

HARVARD COLLEGE OBSERVATORY,  
CAMBRIDGE, NOV. 2, 1881.

William R. Brooks, Esq.:

SIR: You will be interested to know that we have been busy investigating your comet, and I have demonstrated it to be periodic; revolution about 8½ years. Of course the numerical value of the perihelion is a little uncertain yet, but the fact that the comet is a short term periodical is beyond doubt. These are the new elements:

Perihelion Passage, 1881, September 12.82437.	Wash. M. T.
Long. Perihelion.....	18° 10' 5''
Long. Node.....	66 9 2
Inclination.....	6 53 26
Log. Perihelion Distance.....	9.8596448.
Period.....	3047.34 days.

S. C. CHANDLER, JR.

From the foregoing it will be seen that another addition has been made to the rather limited list of known comets of short period. Swift's comet of 1880 was the latest addition previous to this one.

WILLIAM R. BROOKS.

Red House Observatory, Phelps, N. Y.,  
November 3, 1881.

**MECHANICAL INVENTIONS.**

Mr. Andrew J. Miller, of Patterson, Ga., has patented an adjustable box for cotton gins, intended specially for application to the McCarthy cotton gin, but capable of being applied to any gin or other machine wherein a striking or shaking motion is used. The improvement relates to the connections between the vibrating stick or rod and its operating shaft. The invention consists in an adjustable box constructed to hold the stick securely, prevent any down or sidewise movement, and to allow compensation for wear.

An improvement in rotary pumps has been patented by Mr. Abijah S. Clark, of Turner's Falls, Mass. The invention consists in connecting the piston case with the base by screw dowel pins and screw bolts, so that the case can be adjusted to keep the inner surface of its upper part in contact with the wings of the pistons as the piston shafts wear down in their bearings; also, in providing the piston shafts with supplementary bearings to prevent the said shafts from springing out of line; and also in connecting the piston shaft stuffing boxes with the piston case heads by slotted flanges formed upon the said stuffing boxes and screw bolts screwed into the heads.

Mr. James M. Trackwell, of Skookumchuck, W. T., has patented an improved wood boring machine, which is more particularly intended for boring in the trunks of trees, either while standing or when fallen, but is applicable to various kinds of wood boring. The invention consists in a novel construction and combination, with an auger stock and its carrying frame, of a frame and devices connected therewith for holding the auger in place while at work.

An improved machine for combing cotton has been patented by Messrs. John M. Hetherington, of Manchester, County of Lancaster, England, and Edouard J. J. Lecœur, of Rouen, France. The invention consists, first, in a particular construction of the rotating clamps; second, in a comb situated on or near the feed plate, operating in connection with the clamps; third, in a comb fastened on a lever and having a reciprocal and oblique movement; fourth, in a pusher having a forward and downward movement and a holder having a vertical movement, in combination with a table for receiving and piecing together in slivers the tufts of fibrous material.

Messrs. Frederick Crich, of Pittsburg, Pa., and John A. Crich, of Naugatuck, Conn., have patented an improvement in that class of devices that are designed to remove the surplus coating metal from wire as it is drawn through the galvanizing or tinning bath. The invention consists of two metallic plates, having opposite edges longitudinally grooved for holding the wiping material and vertically slotted for the guidance and passage of the wires, one plate being stationary, with its grooved edge upward, and the other being pivoted, with its grooved edge downward, and provided with a lever and weight for regulating the pressure upon the wires, the two plates being arranged in such a manner that the wires, as they are drawn from the metal bath, are brought in contact with the wiping material, first of one plate and then of the other.

An improved take-up and let-off mechanism for looms has been patented by Messrs. William A. Bramall and Charles R. Innes, of Chester, Pa. The object of this invention is to operate the yarn beam in looms by connections from the take up mechanism, in order to provide for letting off the yarn uniformly. The invention consists in a sliding stand fitted for movement to and from the yarn beam and carrying friction rollers that are geared to the take-up mechanism. The stand rises as the yarn beam diminishes in size, so that the friction rollers bear constantly on the yarn.

Mr. Terrence H. Hughes, of New York city, has patented an improved machine for printing or coloring the yarn used in weaving carpets. As usually constructed, such machines consist of a drum, on which the yarn is wound, and a traversing carriage carrying the paint box and rollers by which the color is applied. It is essential that the color be scraped into the yarn after application by the roller. The object of this invention is to work in the color by pressure, and also to effect the winding of the yarn on the drum by automatic mechanism.

An improved machine for making split keys has been patented by Mr. Robert T. King, of Columbus, Ohio. This invention consists, principally, of two recessed jaws pivoted upon a table contiguous to a stud or pin, the jaws being operated by a pivoted lever connected with the lateral ends of said jaws by means of links; also, of lever mechanism whereby the completed key is caused to drop out of the way of the next blank.

An efficient carpet sweeper that is simple and cheap of construction and noiseless in operation, has been patented by Mr. Myron G. Stolp, of Aurora, Ill. The casing is of such a form as to admit of using one sheet of material for the covering, and having the end boards of wood, to the edges of which the sheet is fastened. By this manner of construction the work of making the casing is greatly simplified.

An improved stuff regulator for paper machines has been patented by Mr. Charles W. Mace, of Westbrook, Me. The object of this invention is to accurately gauge the flow of stuff to paper machines, so as to secure uniformity in the thickness and weight of the sheets of paper. Heretofore a movable gate has been used to regulate the flow, and the paper weighed at intervals to determine the adjustment of the gate; but between these intervals the paper is liable to vary on account of the constant variations in the density of the stuff. The improvement consists in the automatic ad-

justment of the gate to the variations in the weight of the stuff as it is fed to the machine, and in a combined feed box, balance, and gate.

**Mr. W. P. Taylor on the Efficiency of the Fontaine Locomotive.**

CANADA SOUTHERN RAILWAY CO.,  
BUFFALO, N. Y., JULY 4, 1881.

WM. H. VANDERBILT, President.  
WM. P. TAYLOR, General Manager.

E. Fontaine, Esq., New York City:

Your favor of the 2d instant, asking my opinion of the Fontaine engine, is at hand. I am happy to reply that this engine is surely proving herself a perfect success, both in power and speed, also in a great saving of fuel.

The engine has been running for several months on our road in freight and passenger service. A test was made with her against one of our best Baldwin engines, with the same sized cylinders, running on regular passenger trains. An accurate record was kept of the fuel consumed, which shows that the Fontaine made an average of fifteen miles more to a ton of coal than the Baldwin engine doing the same amount of work.

As regards the engine running faster than ordinary engines, that has been fully demonstrated on several different occasions and times by different parties. On Wednesday last, the 1st instant, this engine hauled our regular passenger train from St. Thomas to Amherstburg, and made more than a mile a minute whenever called upon to do so. Our private car was attached, making seven cars in the train. A number of miles were run in fifty-six and a half, fifty-seven, and fifty-eight seconds, as timed by the party on the train, which consisted of Mr. Tillinghast, assistant to President of New York Central; Mr. Cox, Assistant Treasurer of Canada Southern; Mr. W. H. Taylor, Auditor of Canada Southern; Mr. Davis, of Messrs. Brown Bros., Bankers, New York, and several others.

This alone proves that your engine can draw a good sized train a mile a minute, without difficulty. There is no question but what she can perform the same service, has greater speed, and uses from twenty five to forty per cent. less fuel than other engines of the same size. While running on freight, the "Fontaine" handled our heavy freight trains as easily as any of our larger Schenectady engines with seventeen by twenty-four inch cylinder, which are the largest engines we have on the road. This shows, at least, that your engine has as much or more power to draw heavy loads as any engine of the same size. This, in addition to her extra speed and saving in fuel, must necessarily demonstrate her superiority over other engines.

I can only add that I wish we had more of the same pattern on our road.

W. P. TAYLOR, General Manager.

**Wrangell Land an Island.**

The mystery of Wrangell Land has been solved. The unusually open season just past made it possible for Captain Hooker, of the revenue steamer Corwin, to penetrate the pack ice and effect a landing on the morning of August 10. This was, so far as known, the first landing ever made on that remote and desolate shore. The landing place was in latitude 70° 4' north and longitude 177° 41' west.

A fortnight later the Arctic search steamer Rodgers effected a landing near the same place, and the day after entered a fine harbor, whence expeditions were sent east and west around the coasts to look for traces of the Jeannette, but failed to find any. A land party, under the command of Captain Berry, climbed a mountain 2,500 feet high, whence they saw open water all around except between the south and southwest, where a high range of mountains seemed to terminate the land. The harbor where the Rodgers last anchored for this land exploration was in longitude 178° 10' west, latitude 70° 57' north, south and west of Hooper's landing at Clark's River. The boat's crew made an unbroken tour around the island. After having established Wrangell Land to be an island, the Rodgers steamed 130 odd miles north and northwest in search of further land, but failed to find any.

On September 19 the Rodgers reached latitude 73° 44' north, the highest point yet attained by an exploring vessel, as far as known.

**New Process for Sulphur.**

The authors boil out the sulphur from its gangue in a solution of chloride of calcium containing 66 per cent of the solid salt and having its ebullition point at 120°. This solution attacks neither the sulphur nor the gangue. In this manner the sulphur is extracted in a state of great purity, at the cost of five francs per ton, and without the production of any nuisance.—*MM. de la Tour du Breuil.*

**Radiophony Produced by Lampblack.**

Lampblack is not merely pre-eminently the thermophonic agent, but it may, like selenium, act as an electric photophone. The author, referring to the double coil receivers, which he described (*Comptes Rendus*, xcii., p. 789), states that, instead of selenizing one of their surfaces, it may be blackened by exposure to the smoke of an oil lamp, taking care not to carbonize the parchment paper, which isolates the metallic coils from each other.—*E. Mercadier.*