

**Man in South America.**

There is no part of the world that offers a more curious subject of speculation as to its future than the continent of South America, as was well set forth in an address before the American Geographical Society, by its president, Mr. Gardiner G. Hubbard.

That the Amazon river system alone drains a basin of fertile land basking under a climate of perpetual summer, greater in area than the whole of Europe, is an astounding fact in itself. This vast territory is practically uninhabited. Its aboriginal population is disappearing, or has disappeared, and the whites, who in sparse number take their place, scarcely pretend to come with the expectation of remaining. There are tracts as large as the whole of France of which we know less than of any equal area on the globe. Tribes of men are living there who are yet absolutely in the stone age, and who, even by barter or distant rumor, never heard of the European race or the use of metals.

The question up to which Mr. Hubbard leads his reader is second in importance to none in anthropology—that of acclimation. Is it possible for the white race, when it shall be endowed with all the resources of art and science which it is soon to have in its grasp, successfully to fight against the terrible odds of a tropical climate? He quotes in his favor the words of the historian, Buckle, and the naturalist, Bates; he might have added others of weight; but it cannot be doubted that most of the medical observers who have devoted themselves to this vast inquiry lean to the opinion that never will the white race flourish under tropical skies.—*Science*.

**Dr. Nansen's Polar Expedition.**

After three years' preparation the Polar expedition under Dr. Fridtjof Nansen has finally sailed from Christiania, Norway, for the North in the good ship *Fram* (*Advance*), the first vessel that has been especially designed and constructed for Arctic research.

The party consists of twelve men, including Dr. Fridtjof Nansen, as leader of the expedition; Lieutenant Scott Hansen, R. N., as scientific member; and Henrik Blessing, M. D., as surgeon and botanist.

The expedition sails in the vessel *Fram*, which is a model of strength, but she is a trifle too small for the enormous amount of stores with which she has been loaded and which have brought her so down in the water, that the ice sheathing has had to be heightened, while giving her hull the appearance of something between a Dutch koff and a Thames barge. The accommodation on board seems too cramped for twelve men. The main cabin or saloon measures but 6 ft. 3 in. in height, 13½ ft. in length, 16 ft. in width at the lower, and 11 ft. at the upper end, while the six sleeping cabins off it are diminutive. In the deck house are a small chart room and Dr. Nansen's study, both small in proportion, and on the whole it gives one the idea of being a neat little doll's house for twelve gigantic puppets. The stove in the saloon consists of an iron case containing numerous copper tubes, and is heated by paraffin lamps. Lighting will be electric or by means of lamps. The dynamo is worked either by steam, wind or hand power. A large windmill will be erected on deck, where there is also a winch which can be worked by four or more men, and, in order to give the hands sufficient exercise during the darkness, the latter will be daily resorted to in the winter months. The caboose, or kitchen, contains an ordinary cooking range, and also a very compact and handy copper stove heated by lamps, the gift of a London firm. The engines are triple expansion, and to obtain a speed of seven knots consume three and a half tons of coal a day, of which she carries a supply of about 350 tons, calculated for 200 days' continuous steaming at about four to five knots speed. The furnaces are constructed to burn petroleum, or even blubber, and under petroleum the vessel obtained on a trial trip the same speed as with coal.

The provisions are of various kinds, quantities being specially prepared on scientific principles, to give the men's stomachs the least possible expansion with the greatest possible quantity of nutriment. Clothing is of many sorts, from woolen jerseys and underclothing to fur outer garments and waterproof British linen. The sledges differ considerably from those taken by Astrup for the Peary expedition, being much lighter, from 9 ft. to 10 ft. in length, 1½ ft. in breadth, and about 6 in. in height. They are said, however, to be wonderfully tough, and capable of bearing heavy loads, and most are shod with German silver to protect the wood. Numerous Norwegian "ski" are also taken. The *Fram* carries seven large boats, including a naphtha cutter, of the ordinary sealing or whaling type, and will be used for the chase of walrus and seals and other sporting purposes, while two will be specially fitted for escape should any accident happen to the *Fram* herself.

Last summer Dr. Nansen changed his plans, and announced his intention of proceeding, not via Behring Straits, but round the Norwegian and Russian coasts, to the spot north of the Liakov Islands which will be the starting point for the journey on the ice to the Pole. By adopting this latter route the sudden

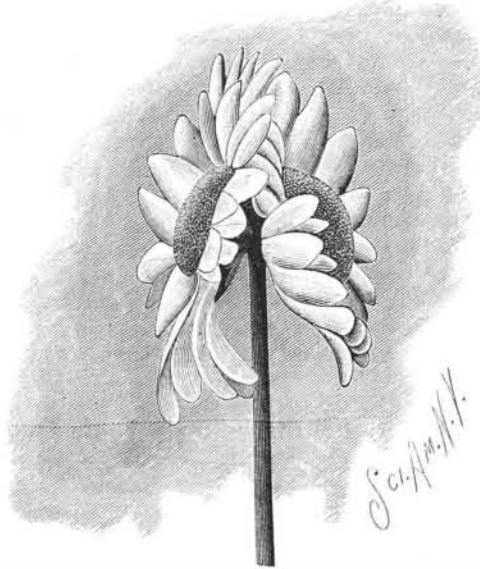
plunge into the glacial stream is avoided, but the chances of not reaching his destination at an early date are very considerably increased, as the ice in the Kara Sea may be impassable, and but very little is known of its conditions on the Siberian coast.—*London Daily Graphic*.

**A TWIN DAISY.**

Scores of adulatory verse have been written by poets of "the fields white-decked with nodding daisies." Gross dozens of earthen flower holders have been filled, by blooming maidens, with daisies for conspicuous ornamentation. The more practical husbandman, however, utters imprecations till the atmosphere takes on a cerulean hue as he speaks of those pests of his field, "them common daisies."

A very uncommon one, however, is the subject of our illustration. Not for its economic or pictorial aspect do we show this strange departure from the regular growth, but on account, first, of its oddity, a genuine twin daisy; and second, because if one daisy is good, two on the same stalk must be better.

Daisies were not made alone for poets, maidens, or farmers. There is our old grandmother, bless her soul! when we were ourselves so enfeebled by weakness as to have copious night-sweats, such as fairly saturated the bedding with our oozing strength, she gathered some of these charming flowers and decorated the interior of the tin teapot with their beauty—practically steeped them into a tea and told us to drink freely of it, when cold. She knew better than farmer or poet that there were other virtues than verse and curse in this little creation of God. It stopped our night-sweats immediately, and

**A TWIN DAISY.**

in our builded-up strength we have thought possibly it were better to have two daisies grow where but one grew before.

**Steel for a Cent a Pound.**

In a recent interview with the reporter of one of the Pittsburg papers, Andrew Carnegie, when asked about the condition of the iron business, replied: "Well, I do not need to say anything about that; it speaks for itself. One pound of steel for one cent! The robber baron has ceased to rob and is now being robbed. The eighth wonder of the world is this: 2 pounds of iron ore, purchased on the shores of Lake Superior and transported to Pittsburg; 2 pounds of coal, mined in Connellsville and manufactured into 1¼ pounds of coke and brought to Pittsburg; one-half pound of limestone mined east of the Alleghenies and brought to Pittsburg; a little manganese ore mined in Virginia and brought to Pittsburg; and these 4½ pounds of material manufactured into one pound of solid steel and sold for one cent! That's all that need be said about the steel business. The capacity of the country to manufacture is beyond its wants. Some furnaces and mills must stop, others must restrict production, and, until that is done, we must expect the continuance of low prices. It is the same all over the world. England is even worse than we are, but she has endured the depression so long that she has closed many of her works. The longer all parties continue to run, the lower prices will become, and the more disastrous the stop will be to some of these when the end comes."

**The Latest Form of Trolley.**

According to the *Baltimore Sun*, the novel sight of a man taking the place of the trolley rod on an electric car was recently seen on the Lake Roland Elevated Railroad. The trolley on one of the large electric cars was caught in a wire, and the entire trolley apparatus was torn off, falling to the street. The accident happened at a time when the traffic was heavy, and it was necessary to prevent a block. A linesman was equal to the occasion. He procured a piece of insulated wire, and, after stripping each end of the insulating material, connected one end through the car roof and, standing

on the top of the car, held the other end against the wire. A connection being thus made, the car was run over the elevated structure to the car shed without accident or delay to the other cars.

**Spiders and their Foes.**

The spider, rejoicing over the captives ensnared in his silken meshes, and binding them securely in his larder as stores against hungry days, lives in continual danger of a righteous retribution, which awaits him at the hands of many foes; but the ghastliest of all is the ichneumon fly, which does not kill its victim, but merely paralyzes it and renders it a totally passive agent incapable of offering the smallest resistance to the cruel power which enthalls it.

I believe that the English representative of this family makes its nest underground, so it generally escapes observation; but the ichneumon fly of Ceylon works in full light of the sun, where all who care to watch its domestic habits can do so.

It is a green insect, in form resembling a wasp, with a marvelously thin waist. It makes its nest of well-worked clay, and then goes out on a hunting expedition. Its victims are invariably spiders of various kinds, but all are subject to the same mode of treatment. A scientific sting injects some poison which effectually paralyzes the luckless spider, who is then carried off to the nest and there fastened with a dab of moist clay. Another and another victim is brought to this chamber of horrors. Then the prescient mother ichneumon fly proceeds to deposit her eggs, one in the body of each spider, which can just move its legs in a vague, aimless manner, but can offer no resistance.

This done, the fly returns to her work as a mason. She prepares more clay and builds up the entrance to this ghastly cell. Then she commences a new cell, which she furnishes in like manner, and closes; then she adds yet another cell, and so proceeds till her store of eggs are all provided for, and, her task in life being accomplished, she dies, leaving her evil brood to hatch at leisure.

In due time these horrid little maggots come to life and find themselves cradled in a larder of fresh meat. Each poor spider is still alive, and his juices afford nutriment for the ichneumon grub, till it is ready to pass into its chrysalis stage, thence to emerge as a winged fly, fully prepared to carry out the traditions of its ancestors with regard to spiders, and to fulfill the purpose for which they have been created, according to ichneumon belief.

In California the spiders live in dread of a certain yellow-winged dragon fly, which darts upon them, stabs them, and devours them. One wary spider, which is there called tarantula, or, more properly, the trap-door spider, constructs for itself a house of refuge, where it retreats in the hour of danger. It is a wonderfully ingenious architect, and displays amazing skill and patience in contriving and constructing its home, which in truth is a fortress, with a strong door to keep out all besiegers.

The nest is a little well of clay sunk in some earthy bank, just large enough to admit an average-sized human thumb. The interior is smoothly polished, but this so-called tarantula is not content with bare plastered walls. She is a diligent worker, ever weaving dainty fabrics; so she lines her home with a double curtain—a hanging of coarse spider cloth next the wall, and over that a rich white satin material, smooth and glossy.

At the upper end of the well-like nest there is a circular door, fastened with a sort of hinge. It opens outward, so that when the spider goes out, it falls and closes of its own accord, and no foe would ever notice the little disk in the earthen bank, which is the only trace of the tarantula's home. But to make assurance doubly sure, the wary spider provides means to secure it on the inside. At the side furthest from the hinge it leaves several small holes in the disk, and by clinging to these with its claws it keeps the door tightly closed from the inside, so that no enemy can enter.

The door is in itself a marvelous contrivance, and a monument of patient ingenuity. Though barely the eighth of an inch in thickness, it is composed of thirty triple layers, each consisting of a coating of clay, lined with two ply of spider cloth similar to the tapestry within the nest. These ninety layers are all fastened together, making a solid door, which is largest on the outside, and fits into a groove, so that it closes quite tight. I suppose sufficient air for breathing purposes comes in at the keyholes.

The yellow-winged dragon fly, against which the spider defends itself so securely, even endeavors to scratch open the closed door behind which its prey has taken refuge. But once within that portal, the fugitive is safe from winged foes. His chief danger then lies from the keen-eyed Indians, who know what a ready sale these curious silk-lined clay nets command among the pale-faced travelers from far countries, many of whom have already obtained very similar spider nests from the shores of the Riviera, and are anxious to compare the spider architecture of the Old World and the New.—*C. F. Gordon-Cumming in Leisure Hour*.

**Algonquin Park.**

The great forests of Canada have for years been suffering as much from fires and from reckless cutting as have the wooded regions of our own country, and this fact the thoughtful people of the Dominion have, fortunately, begun to realize. The public desire, to interpose some check to the pitiless attack upon the woods, and to save a portion of what remains in its primeval condition, took form a few years ago in a project for establishing in the province of Ontario a forest reservation and national park, and commissioners to make inquiry concerning the matter were appointed in the spring of 1892. This commission, of which Mr. Alexander Kirkwood was the chairman, made a report last March, and the bill prepared at their suggestion has since then been enacted as a law under the title of "An Act to Establish the Algonquin National Park of Ontario." Under this act a tract of land in the northern part of the province, some forty miles long and thirty-six miles wide, has been set apart "as a public park, forest reservation, fish and game preserve, health resort and pleasure ground for the benefit, advantage and enjoyment of the province of Ontario," and the lieutenant-governor in council is empowered to add to the park any adjoining townships or parts of townships in which no lands have been heretofore granted. Our experience in the case of the Adirondack Forest and elsewhere shows the difficulty in setting apart any considerable part of the public domain when it includes scattered areas which have become the property of private individuals. Fortunately, although some of the timber included in Ontario's new park had been disposed of, the crown continued to hold the title to the land itself, so that no vested interests stood in the way of securing complete possession. It is fortunate, too, that under the laws of Ontario the park could be placed directly under the control of the Department of Crown Lands, and that the governor in council was authorized to make all needed regulations for the maintenance and management of the park, so that it was not necessary in the beginning to formulate any elaborate code of administration. The commission, too, seems to have been singularly fortunate in that they were able to secure so large a tract and one which is shown by the report to be in so many ways suitable for the purpose it was to serve.

The site itself is an elevated area, containing but little soil fit for cultivation, with few high hills, but many successive ridges of Laurentian rock alternating with valleys and marshes. It lies on the summit which divides the waters flowing toward the Georgian Bay from those which flow into the Ottawa River, and rises to a height of 1,300 or 1,400 feet above the sea level. There is probably not elsewhere in the province a tract which, within the same small space, gives rise to so many important streams, and the commissioners do well, therefore, to note that one

of the most important functions of the reservation will be that of maintaining and regulating the water supply of these streams. The park itself contains large volumes of water in lakes, rivers, brooks and ponds, the entire water surface covering about 166 square miles, while the area of the land is 1,300 square miles. Fortunately, the forest cover of this region is practically unimpaired, so that it will not be difficult to preserve in their original condition these elevated lakes and the streams which run under over-arching woods.

The park is a place of singular beauty. The clearing of land for agricultural use, the cutting away of the timber for lumber, with the added ravages of fire, have almost effaced throughout the older settled parts of Ontario, as well as of the United States, the memory of the beautiful woodland scenery which once prevailed all over the land; and while the preservation of forests in their original state is advisable for economic reasons, it certainly is also worth while to preserve somewhere a remnant of country in its original condition, so that the native and untamed beauty of forest, lake and river may be enjoyed forever. Some kinds of trees, once common in Ontario, are becoming scarce; wild flowers and undershrubs, which diversified the primeval forests, are now almost forgotten where they once abounded, and the perpetuation, therefore, of a large district in its original sylvan conditions will afford a keen pleasure to the visitor as well as a field of study to the student, while for all it will preserve pleasing memories of the past.

Game, fur-bearing animals and some kinds of birds, once abundant throughout Ontario, are becoming scarce. Not many years ago the moose, the monarch of the Canadian woods, browsed in the proposed reservation, herds of red deer grazed in every meadow, the beaver built his dam on every stream, and the bear, mink, otter, and marten were common. The great game has been pursued with the same ferocity which has practically exterminated the buffalo on our own plains. In the spring of 1887 there were found in the district now set apart as a park for the province the carcasses of no less than sixty moose, which had been killed for their skins alone. Surely it is wise to fence in one spot in Ontario where these innocent tenants of forest and stream can be saved from the cruelty and greed which pursues them to the point of extermination, and where they can rear their young in safety.

Here, too, as the commission well points out, is a fair field for experiments in systematic forestry on a limited scale. Forest fires and the operations of lumbermen have diminished the quantity of pine still standing, but extensive areas within the park limits are still well stocked with this valuable wood, and hard wood trees grow in great abundance in groves or mixed with pine. Besides white and red pines, hemlock, tamarack, balsam and cedar, there is an abundance of black

birch, with maple, beech, ironwood, ash and basswood. This variety of trees will furnish opportunities for experiments in every department of forest culture.

Nor is it unreasonable to suppose that so large a reservation will have a growing importance as a sanitarium. Its height above the sea level, its succession of hill and valley, lake and river, its groves of balsam and cedar and pine, which are supposed to have some specific value in curing certain diseases, combine to offer great advantages to invalids who are likely to improve under the conditions of an outdoor life in the pure air and at a high altitude.

Altogether, the establishment of Algonquin Park, a name which perpetuates the memory of the powerful Indian nation who held sway over this territory centuries ago, seems to mark an important advance in the development of Ontario. A hundred years hence it will be cherished as one of the most precious possessions of the province. It is to be hoped that these reservations will be multiplied both in this country and in Canada. There is small danger that the wants of coming generations in this respect will be too lavishly provided for.—*Garden and Forest.*

**Peach Yellows.**

The Agricultural Department has just issued a bulletin on the subject of peach yellows, prepared by Special Agent Erwin F. Smith. It embodies the results of four years' experiments with fertilizers to determine their value as preventives and cures of the disease. The experiments were made in the Middle States, and Dr. Smith says he is satisfied that peach yellows cannot be prevented or cured by fertilization of the soil. He therefore recommends that further experiments be abandoned.

The report made by Special Agent Dodge on the leaf fibers of the United States has just been published by the Department of Agriculture. Mr. Dodge says that the United States annually imports \$8,000,000 worth of leaf fibers, a large proportion of which should and could be grown in this country. The pineapple industry in the United States is increasing each year, and it is believed that if the fiber contained in the leaves of the plant can be successfully extracted after the fruit has been gathered, it will add largely to the profitableness of the pineapple industry.

**Fishing by Electricity.**

An apparatus for fishing by electricity consists of a large iron frame interlaced with netting, which can be opened and closed at the will of the operator. An electric light incased in a lantern is lowered into the net, the electricity being furnished by a motor in the bow of the boat. As the boat moves along the network is thrown open, and the bright light of the lamp, which is seen at a great distance in the clear water, arouses the curiosity of the fish, which readily swim into the trap.

**RECENTLY PATENTED INVENTIONS.****Engineering.**

**ROTARY ENGINE.**—Wentworth Rice, Rapid City, South Dakota. This engine has a main cylinder and two auxiliary cylinders, the latter about half the size of and one on each side of the main cylinder, the three pistons turning in the cylinders being secured on one main shaft. A cut-off valve is arranged close to the piston to shorten the inlet port for cutting off the steam at any time during the revolution of the piston, to use the steam expansively in the cylinder. The engine is perfectly balanced and arranged to utilize the steam very economically and to the fullest advantage.

**Mechanical.**

**TOOL HOLDER.**—John C. Hunter, San Francisco, Cal. This invention relates to tool holders for lathes, planing, shaping, slotting, and other machines. It provides a head made in sections, between which the tool is clamped, one of the sections being adapted to be seated in the stock. To securely hold the tool in proper position the sections are provided with recesses or grooves corresponding to the cross section of the tool, the latter being clamped in place by the screwing up of nuts. The device is of very simple and strong construction.

**Agricultural.**

**CATTLE STALL.**—Jakob Aeberly, St. Paul, Minn. This is an improvement in stalls for milk cattle, providing therefor a feed crib protected by a pend-ent gate, to the lower end of which is hinged a cover, a shaft being attached to the gate and a flexible device on the cover, whereby the latter may be adjusted toward or from the feed crib. The arrangement is such that when the gates and covers are closed the animals will naturally step rearwardly, and may lie down upon clean platforms, thus enhancing their comfort and conducing to their regular feeding.

**THRASHING MACHINE ATTACHMENT.**—Alfred Gilmore, Stillwater, Minn. This is a device to be substituted for the usual cylinder and concave in machines for thrashing flax. Adjacent to the feed rollers is a group of thrashing rollers comprising lower supporting rollers upon which rests an upper pressing roller, composed of independent disks, guides bearing against the ends of the pressing roller, while a flexible armed beater is located in advance of the thrashing group of rollers. As the flax straw fed to the machine varies in thickness the disks of the pressing roll rise and fall, while pressing equally upon the straw throughout the length of the thrashing rolls, preventing the escape of unbroken heads, without breaking or injuring the straw.

**Miscellaneous.**

**METAL ROOFING.**—Benoit B. Detombay, Chenee, Belgium. Metal roofing sheets are, according to this invention, formed with parallel hollow ribs, with interlocking tongues on the edges of the sheets, the construction being such that the fastening rivets or nails will be covered, and the joints rendered absolutely wind and water tight. The sheets may be rapidly applied to a vertical wall or a roof having any degree of pitch, making a very ornamental and extremely strong roofing.

**CASH REGISTER.**—Charles J. Passick, Seward, Neb. This is a register adapted to be secured beneath a counter, and to display to a purchaser when operated the amount of a purchase, which is also registered. The cash drawer can only be opened when one of the registering buttons is pressed. The device is operated positively, and is but little likely to get out of order. A gong is rung every time the drawer is opened.

**VENDING MACHINE.**—Owensby H. Woodfill, Nevada, Mo. This is a machine especially adapted to deliver packages containing stamps, car tickets, etc., or small packages or books. A sight opening in the casing shows the coin deposited to work the mechanism of the machine, any smaller coin falling into the coin compartment without causing a delivery of the goods. The machine is designed to be of very simple, compact, and durable construction, and the invention covers various novel features of construction and combinations of parts.

**ROCK DRILL.**—Harvey P. Jones, Denver, Col. A drill adapted to be operated by hand or power, which may be held at any desired angle, and has an automatic feed, has been provided by this inventor. The drill-holding frame is supported by a strap from the body of the workman, who will ordinarily turn an operating crank by hand, pulling back a hammer against the tension of springs, the hammer upon its release striking upon the shank of the drill. The rebound of the drill is taken up by a special mechanism, and the drill is turned at each blow, the mechanism being such that by a moderate turning of the crank a rapid succession of powerful blows will be struck and the drill will be held up to its work all the time.

**WAREHOUSE GANG PLANK.**—Leonard Kuckartz, Portland, Oregon. A framed structure having at one end a hinged, wedge-shaped apron and flap plate is hereby provided, to form an improved removable gangway from a warehouse to a car or the reverse. The device is of simple construction, and adapted for easy stowage below the floor of the warehouse, while convenient for extension therefrom and adjustment for service, being also adjustable in its parts to suit cars having

floors of varying height relatively to the warehouse floor.

**PAPER BOX.**—Joseph T. Crow, Jersey City, N. J. This invention provides a blank in one piece, which may be quickly and conveniently folded to assume the shape of Noah's ark, thus affording a novel receptacle for fancy crackers, candies, etc. In a box thus made the articles may be packed without danger of the box coming open unless it is to reach the contents.

**SOFA, TABLE AND BED.**—Dennis W. Palmer, Gloucester, Mass. This is a combination piece of household furniture which may be quickly changed to fit it for one or another use. It consists of a frame having heads, each formed with a hinged section, a table hinged to the heads being adapted to form a back for the frame, and also to be supported on the heads, while there is also a bottom head in sections hinged together, one of the sections being hinged to the frame.

**BLIND STOP.**—William W. Hoskins, Houston, Texas. A short metal rod attached to the lower end of the slat strip of the window blind is pivoted at its other end to a pivoted toothed segment swinging in a semicircular case fastened to the bottom rail of the shutter, the notches of the toothed segment being engaged by the tooth of a spring-pressed detent. Upon pressing upon the detent, the slats of the blind may be moved up or down and adjusted in any desired position, for the regulation of the light and air, the detent, when released, locking the segment and slat strip in position.

**DOOR HANGER.**—Theodore C. Prouty, St. Joseph, Mich. This invention relates to an improvement in trackless door hangers, two hangers being used with each door, and the construction admitting of such connection that when the door is closed or entirely open it rests upon the floor, while in its movement from a closed to an open position, or *vice versa*, the door is raised above the floor or carpet. The device is designed to be simple and durable, and not liable to get out of order when fitted to a door.

**WINDOW GARDEN SPRAY.**—Benjamin F. Sill, Long Island City, N. Y. In a short section of hose is a compressible bulb formed integral with a spraying nozzle, by means of which the plants may be easily and thoroughly sprinkled in every direction, without danger of breaking or injuring them in passing the nozzle between the branches. The outer end of the hose section, to be placed in a pail or other vessel containing water, is provided with a filter to prevent the passage of impurities or obstructions.

**KITCHEN AND IRONING TABLE.**—Mrs. Johanna Vooz, 76 East 86th Street, New York City.

This table has a hinged leaf, supported when extended by legs adapted to fold at its side, the top surface of the table and leaf being padded, and the padded surfaces folding together when used simply as a kitchen table. A sliding board in front forms an ironing board for shirt bosoms, etc., and a sliding board at one end forms a bracket on which the irons may be placed. A box is supported under the table by means of chains, the box being adapted to receive and store the sad irons, etc., and being arranged to be drawn up and locked in place on the under side of the table top. The table normally occupies only the space of the usual kitchen table, but may be readily opened out to constitute a large and very convenient ironing table.

**CIDER MILL.**—Clemment W. and Enoch G. Gest, Brazier, Ohio. The hopper of this mill has a grinding wheel with knives on its periphery, and the hopper discharges into a chute at the bottom of which is a chamber with a horizontal slowly working plunger which is hollow and has a head covered with canvas to form a strainer. The press box is cone-shaped and its interior is lined with canvas, and by using the canvas lining in the press box and the strainer over the plunger the pulp may be ground very fine, none of it escaping through the fabric forming the strainer and lining.

**WRITING TABLE AND COPY HOLDER.**—George H. Munson and George B. Haines, New York City. This is a combination device more especially designed for the use of stenographers, to hold the book or paper in proper position for taking or copying notes. The tablet is provided with a holder pivoted to swing either to the front or back, while a support is pivoted on the sides of the tablet and keepers at the pivot ends of the support, the keepers having angular offsets to limit the outward movement of the support. The device is of very simple and inexpensive construction, but is designed to be a great convenience to stenographers and typewriters.

**MEASURING PROPORTIONAL PARTS FOR MIXTURES.**—Alexander K. Suddoth, Memphis, Tenn. This invention provides a conveniently manipulated gauge for determining the amount of any two or more articles to be combined to make a mixture, the articles being placed in separate compartments, and the gauge manipulated to simultaneously drop the predetermined quantities. The gauge is especially adapted for dental use, for regulating the proportionate amount of mercury and amalgam, or other articles constituting a filling or for use in making a plate.

**NOTES.**—Copies of any of the above patents will be furnished by Munn & Co., for 25 cents each. Please send name of the patentee, title of invention, and date of this paper.