Hydrogen Peroxide.

MM. Paul Bert and P. Regnard have studied the action of hydrogen peroxide upon various forms of organic matter and upon fermentations, and find that it possesses very remarkable antiseptic properties. All fermentation due to an organized ferment is immediately and definitely arrested by hydrogen peroxide, the ferment is killed, and even after the removal of the hydrogen peroxide by one of the substances which destroys it most rapidly, the fermentation does not recommence. The yeast of beer is in this manner killed instantly, although it possesses itself the property of decomposing hydrogen peroxide. Specimens of wine, urine, and milk, each containing a few drops of hydrogen peroxide, have been exposed for several months in open vessels without exhibiting the least sign of alteration, while other specimens of the same identical liquids, without the addition of hydrogen peroxide, placed beside them, were in a state of complete decomposition. Although organized ferments are destroyed by hydrogen peroxide, soluble ferments do not seem to be affected by it, saliva, diastase, the]gastric and pancreatic fluids continue to act in solutions containing hydrogen peroxide. MM. Bert and Regnard have also studied the action of hydrogen peroxide upon various organic materials, including the albuminoid substances and all the tissues composing the animal body in a healthy or pathological state. The results of their investigations may be summed up as follows:

1. Hydrogen peroxide, even when very dilute, arrests fermentations due to the development of living organisms, and the putrefaction of all substances which do not decompose it.

2. It has no effect upon diastase fermentations.

3. Dilute hydrogen peroxide is not destroyed by fats, starches, soluble ferments, egg albumen, casein, the peptones, creatine, creatinine, or urea.

4. It is rapidly destroyed by nitrogenous collagens, by musculin, fibrin of the blood, and various nitrogenous vegetable matters.

5. This action is definitely arrested by a temperature above 70°. Putrefaction, however, leaves it entirely intact.

As it appeared from the powerful antiseptic properties of hydrogen peroxide that it might prove of value in surgery, experiments were made upon the point by MM. Péan and Baldy at the hospital of St. Louis, with very successful results.

The hydrogen peroxide, in solutions containing from two to six times its volume of oxygen, according to the circumstances of the case, was used, both externally, as a dressing for wounds, ulcers, etc., and also given internally in certain affections, in doses of from three to five grains, containing six times its volume of oxygen. As a result of their experiments, MM. Pean and Baldy consider themselves justified in stating:

1. Hydrogen peroxide containing, according to circumstances, from two to six times its volume of oxygen, appears to be capable of advantageously replacing alcohol and carbolic acid.

2. It can be employed, externally, for the dressing of wounds and ulcerations of all natures, in injections and in vaporizations, and internally.

3. The results obtained, even in the case of the largest operations, are, up to the present, in the highest degree satisfactory. Not only fresh wounds, but also old ones, proceed rapidly to cicatrization, and reunion by first intention of amputation wounds appears to be encouraged by this mode of dressing.

4. The general as well as the local state appears to be favorably influenced.

5. The advantages of hydrogen peroxide over carbolized water are its not having any poisonous effect nor unpleasant odor, while its application is entirely painless.

M. Bert calls attention to the fact that hydrogen peroxide for surgical use must be entirely neutral, while that obtained from the greater number of dealers in chemicals frequently contains a considerable quantity of sulphuric acid, so that its use would not be without danger.—*Comptes Rendus.*

Alleged Human Footprints in Tennessee Rocks.

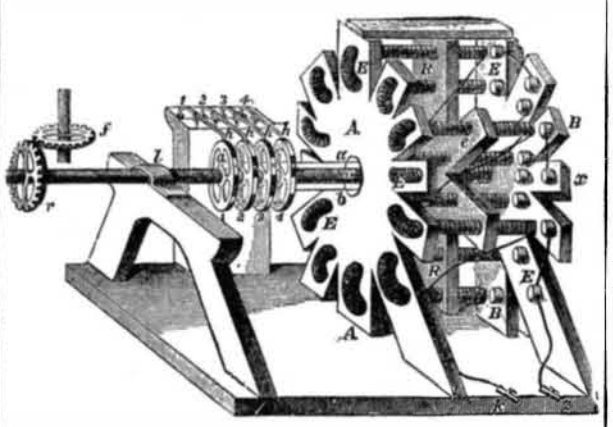
A correspondent of the Nashville *American* tells of some curious footprints in sandrock at a place about twenty miles west of Nashville. "At this point Harpeth River forms a horseshoe bend, making a circuit of six miles, and doubling back on itself to within 80 or 90 yards. In the heel of the shoe rises a ridge, forming almost a perpendicular bluff on both sides, extending about half a mile south in the direction of the toe of the shoe. It rises to the height of about 400 feet, and at the highest point is not more than eight feet wide on the top, with a perpendicular face on the east side for 100 feet or more—that is, a plumb line suspended from the edge of the precipice at the top would hang clear for 100 feet or more before it would encounter any obstruction. The ridge at the bed of the river is some 90 yards wide, but the slope which brings it to that width at the bottom is mostly on the western side.

"At the highest point on the crest of this ridge is a flat surface rock, and on that rock are imprinted six and a half tracks of human feet. These tracks are indented into the rock as much as a quarter of an inch, or in some places more. The tracks are of bare feet, toes all pointing in the same direction—toward the east. Most of the tracks are as perfect as if they had been imprinted on moist sand or earth. They are in three pairs. The first or largest pair is furthest north. They are less than the average size man's foot, and larger than the average size woman's foot, one a little in advance of the other. The next pair is on the south side, but near to the first. In size and appearance they represent the tracks of a child fifteen or eighteen months old. The track of the right foot of this pair is turned in a little at the toes, and the toes of that foot are turned down, as we often see children, when first learning to walk, seem to endeavor to clutch the floor with their toes, as if to avoid falling or slipping. The topographical relation of these tracks to the large ones indicates that the child might have been holding to the finger or hand of the larger person.

"South of these little tracks, but near to them, is the third pair, indicating a child some four to six years old. These last were made by a beautiful pair of feet, and are as pretty tracks as a child ever made in the dust or soft earth. All of these tracks are within three or four feet of the edge of the precipice on the eastern side, as already described. But I have said there was a half track, which is the most interesting feature on the tablet. This half track is printed on the very edge of the precipice, and represents the heel and hinder half of the foot from the middle of the instep back, and would indicate that the toes and front part of the foot projected over the precipice, or that the rock had broken off at that point. This half track is of the large size foot, or foot of the adult person, and is immediately in front of the large pair of tracks already mentioned."

THE FIRST ELECTRIC BOAT.

The idea of propelling a boat through water by the motive power of electricity is no new one. The invention of the electro-magnet showed the power of an electric current to produce a mechanical force. It was no very difficult matter, therefore, for the electricians of fifty years ago to utilize the force of the electro-magnet to drive small electro-magnetic engines; and from the small beginnings of Dal Negro, Henry, Ritchie, and Page grew up a group of electric motors which only awaited a cheap production of electric currents to become valuable labor-saving appliances. Nor was it a very long stride to foresee that if a sufficiently powerful battery could be accommodated on board a boat, it might be possible to propel a vessel with electro-magnetic engines



THE ENGINE OF JACOBI'S ELECTRIC BOAT, 1838.

drawing their supply of currents from the batteries. This suggestion—one of the earliest, indeed, of the many applications of the electro-magnet—was made by Prof. Jacobi of St. Petersburg, who, in 1838, constructed an electric boat. Fig. 1 which we here reproduce, says *Nature*, from Hessler's "Lehrbuch der Technischen Physik," represents the rude electro-magnetic motor or engine which Jacobi devised for the driving of his boat. Two series of electro-magnets of horse-shoe form were fixed upon substantial wooden frames, and between them, centered upon a shaft which was connected to the paddle-wheels, rotated a third frame, carrying a set of straight electro-magnets. By means of a commutator made of notched copper wheels, which changed the direction of the current at appropriate intervals, the moving electro-magnets were first attracted toward the opposing poles, and then, as they neared them, were caused to be repelled past, so providing a means of keeping up a continuous rotation. This machine was worked at first by a Daniell's battery of 320 couples, containing plates of zinc and copper, 36 square inches each, and excited by a charge of sulphuric acid and sulphate of copper. The speed attained with this battery did not reach so much as 1¼ miles per hour. But in the following year, 1839, the improvement was made of substituting sixty-four Grove cells, in each of which the platinum plates were 36 square inches in area. The boat, which was about 28 feet long, 7½ broad, and not quite 3 feet in depth, was propelled, with a convoy of fourteen persons, along the river Neva, at a speed of 2¼ (English) miles per hour.

Hods: Their Construction and Use.

Hods are of two kinds. One form of hod is devised for carrying bricks, and the otherfor the transportation of mortar. While differing somewhat in purpose and balance, the two species of hod are yet so closely allied as to be utterly indistinguishable when apart. Indeed, it is a matter of grave interest to men that during the whirl of centuries, when every other inanimate thing has, through the indomitable perseverance of invention, been forced through a process of evolution that has robbed it of almost every semblance of its pristine nature, the hod remains to-day in structure, substance, and design exactly as the hod originally was. At present hods are cheap. Eighty-four cents will purchase one. The craze for all that is æsthetic, early English, Japanese, Etruscan, or antique has passed by the hod unchallenged. The early Irish hod still reigns supreme.

The dimensions of a mortar hod are as follows: Length of bowl, 22⅜ inches; mean depth of bowl, 9½ inches; greatest width of bowl, 9¼ inches; height of back piece, 12⅜ inches; width of pieces forming lateral sections of bowl, 11½ inches. The dimensions of a brick hod, it will be seen, are different. They are as follows: Length of bowl, 23⅞ inches; mean depth of bowl, 8 inches; greatest width of bowl, 8½ inches; height of back piece, 10¼ inches; width of pieces forming lateral sections of bowl, 8⅜ inches. It is generally conceded that the mortar hod is built larger than the brick hod so as to make the weight when both are loaded as nearly equal as possible.

The shank or handle is 4 feet 2½ inches for each species of hod, and the shoulder rest is always 9 inches long, 3 inches wide, and 1¼ inches thick. This shoulder rest is attached to the inverted ridge pole of the hod, and prevents the edge from cutting into the shoulder of the proprietor.

Touching the materials used in hod building, it may be said that the earliest ideas still obtain. Iron hods have been tried, but abandoned, because they were liable to rust and to become cracked when dropped six or seven stories by proprietors, who invariably and instantly relinquish all ideas and implements of labor at the stroke of 12 and of 6. The verdict of ages is that the bowl of the hod shall be of yellow pine, and the shank a hickory pole with the bark on. In constructing a hod, it is found necessary to use thirty-three nails for the brick species, and twenty-nine nails and four screws for the kind intended for mortar. The screws are used in the latter instance to fasten the two arms of the shank to the bowl, because screws do not leave holes, as do nails when they become loosened. Small holes allow mortar to escape, and are therefore open to objections. In making the bowl of a hod, eightpenny nails are used; fourpenny nails answer best for the shoulder rest, and shingle nails for securing a narrow strip of sheet iron that runs over the top of the back piece of the bowl for the purpose of imparting additional strength. All of the nails are machine made, with the exception of those used in fastening the shank to the bowl, which are hand made and highly malleable. The mortar hod, besides having four screws, is lined at the seams with white lead. It has been considered somewhat superior to the brick hod. The weight of hods one hour after completion is ascertained to be exactly as follows: Brick hod, 9 pounds 6 ounces; mortar hod, 10 pounds 3 ounces. Fifteen bricks are carried in the common hod.

There is a widespread impression that the shank of a hod is steamed after being split into the V-shape necessary to accommodate the bowl. This is erroneous. The shank, after being slit for a distance of 7⅝ inches, is violently forced asunder by pressure against the wedge-like base of the bowl, and is secured while in that position.

Very many hods are owned privately, and many thousands more are owned by a large company up town, which makes hods and rents them to builders along with its patent hod elevators. The introduction of hod elevators, oddly enough, met with no opposition from individual proprietors of hods, but, on the contrary, was warmly welcomed by them. The elevators do the work of many men, but as building has increased in a satisfactory ratio, there has always been enough work for men who decided to adopt the hod as a means of advancement or sustenance. Indeed, so well have the individual hod proprietors in question adapted themselves to the existing state of things, that they absolutely refuse to climb higher than the second story now, and builders must, perforce, employ the elevators for stories of a loftier pitch.

At no time in the annals of the city has the hod industry been at a higher tide of prosperity. Thus the outlook for the hod is as bright as its history has been unvarying.—*New York Sun.*

The Digestibility of Oysters.

Why oysters should be eaten raw is explained by Dr. William Roberts in his lecture on "Digestion." He says that the general practice of eating the oyster raw is evidence that the popular judgment upon matters of diet is usually trustworthy. The fawn colored mass, which is the delicious portion of the fish, is its liver, and is simply a mass of glycogen. Associated with the glycogen, but withheld from actual contact with it during life, is its appropriate digestive ferment—the hepatic diastase. The mere crushing of the oyster between the teeth brings these two bodies together, and the glycogen is at once digested without any other help than the diastase. The raw, or merely warmed, oyster is self-digestive. But the advantage of this provision is wholly lost by cooking; for the heat immediately destroys the associated ferment, and a cooked oyster has to be digested, like any other food, by the eater's own digestive powers.

"My dear sir, do you want to ruin your digestion?" asked Professor Houghton of Trinity College one day of a friend who had ordered brandy and water with his oysters in a Dublin restaurant.

Then he sent for a glass of brandy and a glass of Guinness's XX, and put an oyster in each. In a very short time there lay in the bottom of the glass of brandy a tough, leathery substance resembling the finger of a kid glove, while in the porter there was hardly a trace of the oyster to be found.

The Practicability of Patents.

There seems to be no abatement in the number of patents issued weekly from the Patent Office on railway appliances. The average American genius is determined that there shall be *one* patent in kind, better than all others, and this is the stake he plays for. Even if there be already patented 999 devices for accomplishing a desired result, or perfecting a principle in railway mechanics, it does not follow, so thinks our inventor, that his patent will be another dead cock in the pit awaiting the resurrecting hand of appreciative capital; so he applies for a patent upon his car coupler, or track washer, or whatever else it may be, with a claim stated as broadly as may be possible upon an idea sandwiched between the existing 999 ideas of the same device "already gone before."

Taking out a patent is a comparatively inexpensive gratification, and the honor of being an inventor is something, because it is generally conceded by all right-minded people that inventors are thinkers. If we number our thinkers by the number of patents already issued on car brakes, couplers, track fasteners, and other multifarious appliances for railway purposes, there are a host of them in the United States. Judging from the number of this class of patents, the individual who can evolve a new idea without a twinge of infringement upon existing devices must have a thinking cap of a "higher order."

Herbert Spencer probably never took out a patent in his life, and perhaps he never will, as his thinking runs to the primitive order of things, not the progressive. His thinking is contemporaneous with the origin of the lever, the screw, the pulley, and the wedge, the four great mechanical powers —all of which we have the free and untrammeled use of without fear or hinderance from royalty lawsuits.

As soon as our inventor gets the necessary paper from the Patent Office, making him a greedy monopolist for seventeen long years, he has his invention aired in the *Rural Register*, and then with his model in hand he calls upon the nearest railroad manager, who is generally so case-hardened at the sight of these things that he causes a chilling sensation to seize upon those who have the temerity to invade his office with models of railway appliances. Our inventor is deeply chagrined at his reception. He expected to be received as a scientist, a discoverer of one of the lost arts; he is surprised that he is not told immediately to go and put his device upon every engine, passenger coach, and gravel car on the road—and at the expense of the company. Instead of this he is told that his device is not needed, and thus another disciple is added to the waiting army of cynics who believe that railway managers know not the good things of this life which underlie royalties.

The railway manager of the future will probably enjoy his *dolce far niente* and attend to business at the same time—at least our inventors seem determined that he shall do so, whether he will or not. The laborious routine and vexatious cares attendant upon railway operation will possibly become extinct. The railway superintendent, in the management of his road and his army of employes, will not only be autocratic, but automatic. He will move (automatically) his automatic train over his automatically laid rails, across bridges which will stand automatically, and the automatic train will be stopped by the automatic brakes at the station, where passengers, baggage, and express goods will be discharged automatically and received by an automatic agent. The passengers will ride and goods will be shipped per automatic rates, which will adjust themselves automatically to existing pools, thus avoiding a "war of rates." And the happy stockholders will weep for joy at the automatic evenness of dividends and the excellence of the automatic era generally.

We know that there are many meritorious patents not in use, and many of them never will be. They may be correct in principle, and their workings all that could be desired, yet the reason they are not adopted, it most generally will be found, is that they cannot supplant a cheaper substitute which answers the same purpose equally as well. Railway managers are not ready to adopt a new device simply because it is ingenious and "handy." Yet patentees cannot complain if their devices are not always used. In many instances they have patented articles for which there is no demand and very little use.

Our railway managers have taken up with many patents where they could see that the safety of lives and trains could be promoted by using them. Let any one examine the exterior of a passenger coach, and the interior also, and see how often and upon how many different parts he will find the word "Patented," and the date thereof. It is the same with engines, bridges, tracks, depots, ticket offices, as well as the shop machinery which gives employment to large forces of mechanics to keep these adjuncts of railway operation in repair. Although many of the articles mentioned may not have the word "patent" stamped upon them, a royalty for their use is paid to the inventor by the railway company. We have seen a street car in Chicago with the words painted on the inside: "Built under 75 Patents"—a brief way of enumerating the list. This certainly is not a moiety of the number of patents used by railway companies in the make-up of their plant. If as simple a thing as a street car cannot be constructed with less than seventy-five patents, what is the number in use in the make-up of a first-class passenger train?

We are indebted to the fostering spirit and protection of our patent laws for the best machinery and processes we have to-day in use in the agricultural, manufacturing, and railway world, and they have been the means of enriching hundreds of people. Out of the thousands of patents issued many are chaff and many are wheat. Our shrewd, practical business men have made the separation, which the inventor is rarely qualified to do.—*Railway Review.*

Drainage and Typhoid in Paris.

Again the grave increase of typhoid fever in Paris must, says the *Lancet*, call public attention to the extraordinary imperfections of the drainage of this "center of civilization." Most of the houses communicate direct at once with a cesspool and with the public sewers. That the water in these sewers is highly contaminated has been demonstrated over and over again by the death of all the fish in the Seine near the sewer outfall and by numerous analyses. No sink pipe is trapped in Paris, though it is sometimes conducted through the wall; where, as it measures only about two inches in diameter and joins the water spout junction, which is some four inches in diameter, the connection might be broken off and a sort of ventilation established. This, however, is carefully prevented by the use of a quantity of cement, so that the gases rising up the water spout are conducted straight into the house, attracted by the higher temperature of the interior.

Of late some of the iron pipes coming from the houses into the sewer have been bent upward at their extremity, and form a sort of spoon which retains a little water and is supposed to act as a siphon. But this is a mere illusion, as there is no "dip" whatsoever to the siphon, and the slightest pressure or the smallest ripple over the surface of the water, caused by wind or the falling of a heavy substance, would suffice to break the seal. We may therefore safely assert that an enormous majority of the Paris houses are utterly unprotected against the injurious emanations from cesspool and sewer. Further, many closets are utterly devoid of water supply, while in all instances the house drain pipes are much too large, and therefore cannot be kept clean, particularly when the fear of overflowing the cesspool necessitates a stint of water.

Over and above these considerations, the sewers themselves are so unsuitably constructed that they do not act, and it is consequently necessary to maintain, at great cost, an army of 800 men to literally push the heavy deposits along to the sewer outfall. Many of the small branch sewers also are so dangerous and foul that the men refuse to enter them, and these have to be left to engender disease, without even an effort to cleanse them. Finally, there is no organized method of ventilating the sewers. The necessity of sewer ventilation has not yet been recognized, and what ventilation there may be is of a purely accidental description. In fact, the houses, by reason of their superior elevation and temperature, are the most active sewer ventilators that exist, and it is not till after the sewer gas has been breathed by the inhabitants of the apartments that it reaches the streets or open air. Of course, the more elevated quarters of Paris are subjected to a stronger pressure of sewer gas, which in unventilated sewers generally tends to ascend to the highest points. Hence, typhoid fever is usually more prevalent at Montmartre, Batignolles, and along the course of the "collecteur du Nord."

It will take many years and a large expenditure of money to remedy all these defects; still the evils might be modified to some extent by the immediate introduction of good siphons at the junction of the house drains with the public sewers. Pending their reconstruction, the sewers might with comparative facility be ventilated, and police supervision could insure greater cleanliness within the houses. All this could be done pending the adoption of some comprehensive and general scheme of drainage; and, though such measures would not suffice to place Paris on a par with modern principles of hygiene, still they would save many valuable lives. Considering the large number of Englishmen who frequent the French capital and, by their lavish expenditure, enrich the hotel and shopkeepers of that attractive city, we have a right to complain of the risks our compatriots are compelled to incur when they visit Paris.

Curious Nesting Places.

A few years ago a pair of pewees built their nest on a brace under the guards of the steam ferryboat running between Portland and Middletown, Conn., the boat making trips every ten minutes. They seemed to claim Middletown as their home, as they appeared to collect their building material on that side of the river. When the boat was on this side they would wait patiently, sitting on the piles until she came into the slip, although I have occasionally seen them fly out and meet the boat in the middle of the river. "John," the veteran collector (he has been on this ferry thirty years), took quite an interest in them, and did what I doubt he never did before—let anything cross on this boat without collecting the fare. The birds did well, and we watched them until the young left the nest.

I have a bad habit of waking up about four o'clock in the mornings, and in summer, to keep out of mischief, I "pot" around the garden until breakfast time. One morning last spring I noticed a bluebird flying toward the house with her bill full of dried grass. I watched her, and you would never guess where she went with it—right into the kitchen chimney. The chimney has a flat stone on top, with openings beneath. I sat down and watched the pair work most lively until the cook came down and started the fire, when, as the smoke poured out, the birds left. Well, thinks I, you have given that up as a bad job; but the next morning they were at work as hard as ever. I waited for about ten days, when the cook complained that the fire did not seem to work right. "It didn't draw," she said. I went on the roof and took off the stone and looked in. The chimney is not a straight one, but has what the masons call a "draw off" in it. On that ledge, as you might say, they had begun their nest, and had finally nearly filled up the whole space in the chimney. In one corner was the nest as natural as life. I took a long wooden rake and carefully brought up and out the whole structure, and, if you will believe me, there was material enough to fill a half bushel measure.

I notice your remarks on "Coe's Strain," in October number. Had the usual luck this spring. Although I have had little time, I have managed to take the great horned and barred owls, a beautiful set of sparrow hawks, red-headed woodpecker, fine nest of white-bellied nut-hatches, and a few others of less account.

Took a chipping sparrow's nest with one of her eggs and one cow bunting's in it. The sparrow had built over the top of the nest a perfect network of horse hair, same as the lining of the nest, and so nicely that although one could see the eggs plainly it could be turned "bottom side up," and the eggs not fall out. I never saw this before in chipping sparrows' nests. "I put 'em in the bag" with the rest. Have a fine specimen of a chicken which I mounted a few days ago —perfect in every way except that he has four legs. What a sweet thing he would be in an early garden! I have a martin box on a pole some fifteen feet high. The martins came in the spring and stayed a few days, and then for some reason best known to themselves left. A pair of robins at once took possession and built a nest in one of the compartments, and when finished the old lady sat (?) set (?) sot (?) with her head out of the front window, showing that she was "at home."

But the sweetest of all this year is this: When I built an addition to my horse barn, I was obliged to cut down an old cherry tree, which I did, leaving a stump some six feet high, into which I placed a ring to hitch my horses to. One morning I noticed a pair of chickadees at work on the stump, and I gave them my closest attention. My man hitched the horses to this stump every morning as he cleaned them off, and although the horses' heads were within a foot of their hole they kept at work, and finally laid their eggs and brought forth the young in good order. By the aid of a mirror I threw the light into the hole, so that I could see all that was going on. They began work April 27, carried in nesting material May 10, began setting May 17, hatched May 26, and the young flew June 12. What I notice in this as singular is the fact that we usually find these birds breeding in the thickest of swamps, and almost always in white birch stumps; and that they should come into the open and so close to the house; and more, they worked most systematically, each working and taking out chips. One would carry away the chip that he (or she) had pecked out, and fly to a pear tree near by and "wipe" it off her bill, when the other would at once go in and go to work. They did it so regularly that, as one went out of the hole the other met it about half way between the pear and cherry tree.—*W. W. Coe, Portland, Conn., in Ornithologist.*

The Stinging Trees of Australia.

The stinging plants of Queensland, Australia belong to the natural order Urticaceæ, and represent two genera, *Urtica* and *Laportea*. Of the first named genus there are two species in Queensland, both herbaceous plants:

1. *Urtica incisa*, found chiefly on the Fitzroy River, and said by M. Thozet, of Rockhampton, to grow in great profusion.

2. *Urtica urens*, a common weed in this country—the nettle—and found in the neighborhood of dwellings in Queensland.

In the genus *Laportea*, on the other hand, there are three great stinging trees:

1. *Laportea gigas*, a large tree, often attaining a height of 100 feet or more. The wood is soft, fibrous, and juicy, and the bark smooth and ash colored. The base of the tree is supported by prominent angles or buttresses. The leaves are from 1 foot to 1 foot 6 inches long, and nearly as broad, smooth above and sprinkled with a few stinging hairs, but more or less covered with short, soft hairs underneath. It is found chiefly in South Queensland. The sting is severe, but not so bad as that of *L. moroides*.

2. *Laportea photiniphylla.*—A fine tree, from 60 to 70 feet in height, with a straight stem. The wood is soft, and the leaves are almost elliptical in shape, nearly smooth, and sprinkled with a few stinging hairs. It is found in the Moreton Bay district, and also in North Queensland. M. Thozet mentions having found it on the Fitzroy River.

3. *Laportea moroides.*—A small tree, with most virulent stinging hairs. The leaves, which are about 9 inches long, are covered with short soft hairs on both sides. The fruit is of a beautiful purple color, succulent, and densely clustered. This tree is found chiefly in the Kennedy district in North Queensland. Mr. Fitzalan, of Bowen, mentions that it is common about Port Denison and Edgecumbe Bay.

These three stinging trees, which Bentham and Von Mueller place in the genus *Laportea*, are by many botanists included under *Urtica*.

Of all the stinging plants of Queensland, *Laportea moroides* surpasses the others, both in the severity of the pain produced at the time and in the duration of its effects.

THE newest of the many European canal projects is one for uniting Cologne with Antwerp.