WOODEN SHOES FOR HORSES.

Much labour would be saved in gathering the hay crop upon salt marshes and on reclaimed swamps, if horses could be used for mowing, raking, and carting. It often happens that the farmer has several acres of this soft land, where the crop costs all it is worth to gather it. He must mow, rake, and move the grass by hand, or let it rot upon the ground. We recently saw a wooden shoe that completely remedied this difficulty. It was made of stout oak board, one inch in thickness, ten inches long, and eight broad, and rounded at the corners. A cleat is fastened across each end to prevent it from splitting, and to give additional strength to the shoe; this should be fastened either with stout screws 1½ inches long, or with wrought iron nails driven through and clinched upon the upper side. An iron strap is fastened across the middle of the shoe to receive the shanks of the strap going over the hoof of the horse, which are held in place by screws and nuts. The horse should be rough shod, and places should be cut into the wooden shoe into which the toe and heel corks will snugly fit. An iron strap is fitted to the hoof, and the shanks pass through the plank and are fastened with a nut and screw. This shoe is so simple in its construction that any one accustomed to the use of carpenters' tools can make the wooden part of it, and a blacksmith can furnish the iron straps and screws. A common monkey-wrench will be needed to put on the nuts, and to tighten them, if they get loose. A set of shoes made of good white oak will last a great many years. It will be seen that the shoe enlarges the lower surface of the hoof about four times. It is found in practice that a light horse, weighing, say 900 lbs., shod in this way, can go upon any soft land, where a man could walk, with safety. If the horses are very heavy, or the land very soft, the shoes must be enlarged, These articles had been in use upon the farm where we saw them, some ten years, and so manifest were their advantages that they had been adopted by all the farmers in the neighbourhood who had occasion for them. They were in use by all the owners of a large reclaimed salt marsh, and the facility they afforded for gathering the crop had added very much to the value of the land. To owners of marsh lands these shoes will be invaluable.—*American Agriculturist.*

A NEW INSECT POISON.

M. Cloez, who is engaged at the garden of the Paris Museum, has invented, according to *Scientific Opinion*, what he considers a complete annihilator for plant lice and other small insects. This discovery is given in the *Revue Horticole* with the endorsement of its distinguished editor, E. M. Carriere. To reduce M. Cloez's preparation to our measures, it will be sufficiently accurate to say:—Take 3½ oz. of Quassia chips, and 5 drs. of Stavesacre seeds, powdered. These are to be put in 7 pints of water and boiled until reduced to 5 pints. When the liquid is cooled, strain it, and use with a watering pot or syringe, as may be most convenient.

We are assured that this preparation has been most efficacious in France, and it will be worth while for our gardeners to experiment with it. Quassia has long been used as an insect destroyer.

The Stavesacre seeds are the seeds of a species of lark-spur, or Delphinium, and used to be kept in the old drug stores. Years ago they were much used for an insect that found its home in the human head, but as that has fortunately gone out of fashion, it may be that the seeds are less obtainable than formerly. The stavesacre seeds contain Delphine, which is one of the most active poisons known, and we have no doubt that a very small share of it would prove fatal to insects.

MAKING PRESENTS.

Many habits which look like the results of education are in fact *quasi* instincts; and of these may be counted the practice of making presents. With the savage and the civilized man alike, to make presents seems to be an impulse that comes by nature, whether in the form of tribute from a subject, propitiation from an inferior, largesse from a superior, or an "offering" bestowed out of love and liking. All through the East the fit manner of making presents constitutes perhaps the most important item of social life; and everyone who has had personal experience knows the extreme difficulty of exactly proportioning the return to the gift, and representing to a nicety the social status of the recipient by the value of the offering; the whole thing being a mere matter of exchange and arbitrary ceremonial, absolute in its essence, though shifting and somewhat perilous in its conditions. Woe to that unlucky one who trips in his Oriental Cocker, and gives as much to Yakoob as he gave to Mohammed!—Yakoob's position in life being by an infinitesimal fraction the inferior. it has always been so; and "going with a present in one's hand" has been held from time immemorial the surest means of getting what one wants from great men, and of buying the allegiance of small ones. We do not expect then that anything we can say will destroy this instinct, but we might see it turned to better account than it is now; for the practice of making presents, as we carry it out, is surely one of the most stupid things in the world—doing no good to anyone, if we except the makers and vendors of the rubbish through which we express our good will by spending our valuable money on what is not "money's worth." For we seldom give anything really useful, save to the confessedly poor whom we supply with blankets and tea, warm waistcoats and screws of snuff and tobacco: when our gifts come under the head of charities rather than that of making presents. To those of our own class we would be ashamed to offer, and affronted to receive, anything honestly serviceable. Valentines of hideous design and worthless material; queer monstrosities incapable of being cleansed, for holding cigar ash, flowers, matches, according to the superstition connected with their manufacture, but really holding only dust and fluff; trumpery ornaments for the person, of no value or meaning—these are the things we give; and the funniest part of the whole matter is, that for the most part we give them to those who can afford to buy for themselves, and who can very likely afford to buy better than we can to give. There they are in the shop windows by dozens, ticketed so much, for anyone to take who has money and the mind. There is nothing special about them, nothing unique or impossible for the public at large. They represent just so much current coin, no more, unless we add the passing remembrance of the person to whom we make the present, which nine times out of ten is not spontaneous, but because we "feel we ought." If it was anything that could not be procured elsewhere—a picture by a great master, or one by our own hand, if we ourselves are of the great or the little masters; a foreign curiosity, not to be bought at a dock sale or in Regent street; if it was an old relic, the like of which could not be turned up in half a dozen bric-a-brac shops, a unique specimen of a by-gone manufacture—well and good: there would then be some intrinsic value in the gift, surpassing even the value of diamonds or other more refined forms of property. But things of modern make, that are to be had at every corner of the street—that are of no use when bought, and generally of more than questionable beauty—the sooner the habit of buying such inanities to give to people who don't want them, and who could afford to buy them for themselves if they did, is done away with, the better.—*The Queen.*

"THE SOUR LAKE" IN TEXAS.

The *Journal of Applied Chemistry* for March has a communication from "R," who, while engaged in a geological survey of Texas, visited the Sour Lake in the south-eastern part of that State. We quote from the description: "The lake occupies an area of about five acres, but at one time it must have been spread over a larger space. It is of an irregularly elliptical form, surrounded by low, neatly rounded mounds. The water is quite sour, and to most persons has a disagreeable, fetid odour and taste, from the presence of petroleum or mineral oil, which rises from different parts of the lake in the form of small globules, and floats upon the surface of the water. Bubbles of carburetted hydrogen constantly escape from every part of the surface of the lake. The geological structure of the region consists of alternating beds of light brown and ash colored clay and marl, soft calcareous, and siliceous sandstones, and bituminous slabs, with included beds of lignites and iron pyrites. These belong to the miocene tertiary period, which forms a broad belt from fifty to eighty miles wide, and margins the gulf coast for some hundred miles. It is the southern equivalent of the miocene of the *mauvaises terres* of Nebraska, so celebrated for extinct animals, which have been found in such profusion. The acidulous waters are derived from decomposition of underlying aluminous and pyritiferous shales, by which sulphuric acid is set free, and becomes mingled with the water which percolates the strata. The astringent taste of some of the springs is due to alum. The source of the petroleum may be found in the decomposition of lignite beds and bituminous shales, which are largely developed over the miocene region of Texas."

THE CLEVELAND LAKE TUNNEL.—Cleveland, Ohio, tired of her nauseous water, is imitating Chicago in the construction of a lake tunnel, wherewith to obtain the requisite supply of unpolluted liquid. The work—which when completed will consist simply in a shore shaft sunk to the proper depth, a tunnel extending out a mile and a quarter into the lake, and a vertical shaft and crib at the outer end, with inlets for the admission of the water—is being carried on under considerable difficulties. The mining is a tedious process, as there is only space for one man to work. The instrument used is a pick with a bit nearly as broad as an adze. The clay is so strong and adhesive that by the most vigorous blows of the miner only little fragments are chipped out as large as a man's fist. The work progresses night and day, the miners working by reliefs the entire twenty-four hours. Next spring the crib will be placed in position, and the outer shaft sunk, so that the work can be carried on simultaneously at both ends of the tunnel.

A FLOATING TELEGRAPH STATION.—In the course of about three weeks a telegraphic station vessel will be moored by the International Mid-Channel Telegraph Company at the entrance to the English Channel, in from 55 to 59 fathoms water, in latitude 49° 26' 30" N., longitude 6° 17' W. of Greenwich. The vessel will be painted black, with the words "Telegraph Ship" in white letters on her sides: she will have three masts. At the top of the mainmast a large black cone will be hoisted during daytime, and a powerful globular light at night, elevated 30 ft. above the sea, which in clear weather should be seen from a distance of 6 miles. A flare-up light will also be shown every fifteen minutes during the night, from an hour after sunset to an hour before sunrise. During foggy weather, day or night, a bell will be rung continuously for half a minute every quarter of an hour; and for the first six months, or until the 1st day of October, 1870, a gun will be fired every quarter of an hour, and after that date every hour. The commercial code of signals for the use of all nations will be used on board, to the exclusion of all other codes, and none other can be noticed.

WOOD OIL.—There is a tree in India which yields a remarkable substance known as "wood oil." There was a consignment of this oil received here by the last China steamer. This oil is obtained from several species of *Dipterocarpus*, by simply tapping the tree.—*San Francisco Scientific Press.*

THE COW TREE.—On the parched side of a rock in Venezuela grows a tree with dry and leathery foliage, its large woody roots scarcely penetrating into the ground. For several months in the year its leaves are not moistened by a shower—its branches look as if they were dead and withered; but, when the trunk is bored, a bland and nourishing milk flows from it. It is at sunrise that the vegetable fountain flows most freely. At that time the blacks and natives may be seen coming from all parts, provided with large bowls to receive the milk, which yellows and thickens at its surface. Some empty their vessels on the spot, while others carry them home to their children. One imagines he sees the family of a shepherd who is distributing the milk of his flock. It is named the *palo de vaca*, or cow tree.

THE EXPEDITION TO EQUATORIAL AFRICA.—A letter was received at Alexandria on March 14 from Sir Samuel Baker, dated Khartoum, Feb. 7, wherein he reports that thirty-two boats were collected together to convey him and his party to Gondokoro. With the last shipment of troops the total expeditionary force amounts to 700, including a battery of artillery. Mr. Higginbotham is reported to be within four days' march of Khartoum, having crossed the Nubian Desert. He has under his charge the steel steamers for the lake Albert Nyanza. Mr. Higginbotham has command of the rear expedition, and will follow Sir Samuel Baker immediately. All the members of the expedition are in good health and spirits.

The following bit of princely generosity is attributed, rightly or wrongly, to the Prince of Wales:—A few days since a gentleman, seeing a commotion amongst the porters at the Great Western Railway station in London, inquired the cause, and heard that the Prince of Wales, who had shortly before arrived from Windsor, and had perhaps been timing the train or the mileage rate, left his watch on the seat of the carriage. A porter, seeing the watch, hastened after the Prince, who, on its being presented to him, said—"Keep it, my good fellow, keep it." The effect on the fraternity may be imagined.

The following is copied from a board outside a tailor's shop in the Rue de Frejus, at Cannes. The French papers make their English on the same principle—that is, per dictionary—but the tailor has been somewhat fortunate in getting abstruse definitions for French Here it is:—"Borgarelli Tailor made the nine and they one load of to repair to nine staddle clothing he one to give himself to home of the gentlemen that he and to ordir of same for of lady stage-coach and exatness." As an engima it is not bad, and a clue may be given to those with little time to spare, or power of application, thus. The words, "They one load of to repair to nine," are clearly "*On se charge de réparer à neuf*;" staddle should be stable, and is, with clothing, a free translation of *livrée*; stage-coach is derived from diligence, that *is*, the promptness in executing the work Perhaps a travelling Englishman, given to the usual exuberance of spirits which afflicts some when on the continent, has given the tailor a helping hand, and received a blessing in return.

SHARP PRACTICE.—The Albany papers chronicle the following shrewd practice on the part of the lady managers of the fair in that city. One morning—three days before the fair closed—one of the city papers contained a personal which read thus:—"Dear George—My heart is breaking Don't desert me. Come this evening to the fair on St. —— street. You will find me at the —— table. Lizzie." The advertisement was, of course, read by those who are wont to look over the "Personals," and the rendezvous in view was extensively spoken of by the patrons of the fair. In the evening people clustered around the —— to witness the meeting of George and Lizzie, to ascertain who they were. While waiting for the coming of George, for whose sake Lizzie's heart was breaking, the eager crowd made liberal purchases at the table, and in a comparatively short time the three misses had disposed of nearly their whole stock in trade. It is needless to say that Lizzie and George never met at the appointed place.

Sir Boyle Roche has a successor in Mr. O'Reilly Dease, member of the present House of Commons for the County Louth. Speaking of Irish discontent the other night he warned Government that they "must look the unclean thing in the *face* and *boldly apply the axe to its root*." This brought down the House.

CHESS.

Game played by MORPHY, while conducting the Automaton Chess-player in London, 1820; giving the odds, as he invariably did, of the K. B. P.

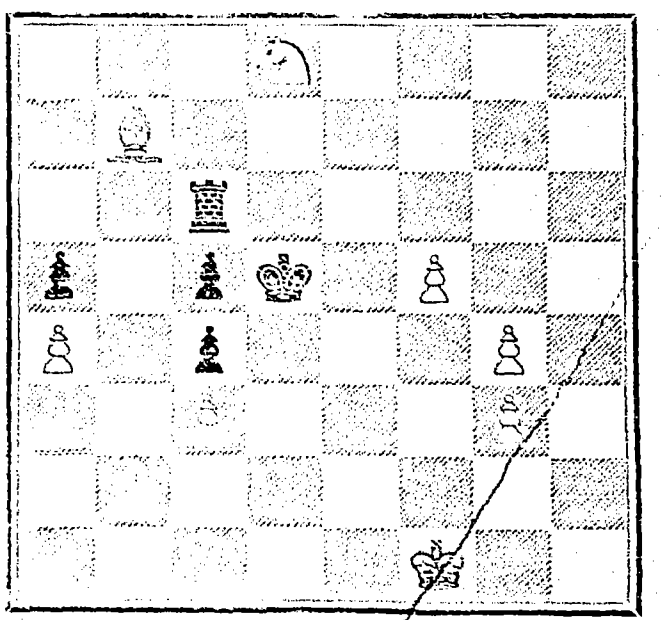
(*From Walker's "Chess Studies."*)

	Mr. C—h—e.	Mouret.
1.	K. P. 2.	K. P. 1.
2.	Q. P. 2.	Q. B. P. 1.
3.	K. B. P. 2.	Q. P. 2.
4.	K. P. 1.	Q. B. P. 1.
5.	Q. B. P. 1.	Q. Kt. B. 3rd.
6.	K. B. Q. Kt. 5th.	Q. Q. Kt. 3rd.
7.	B. takes Kt.	Kt. P. takes B.
8.	K. Kt. B. 3rd.	Q. B. R. 3rd.
9.	K. to B. 2nd.	P. takes Q. P.
10.	Kt. takes P.	Q. B. P. 1
11.	Kt. K. B. 3rd.	K. Kt. R. 3rd.
12.	K. R. P. 1.	K. B. K. 2nd.
13.	K. Kt. P. 2.	Castles, K. R.
14.	Q. Q. Kt. 3rd	Q. Q. B. 3rd.
15.	Q. Q.	Kt. B. 2nd.
16.	K. R. P. 1.	K. B. Q.
17.	Q. Q. B. 2nd.	Q. B. Kt 2nd.
18.	Kt. Kt. 5th.	B. takes Kt.
19.	R. P. takes B.	K. Kt. P. 1.
20.	Q. K. R. 2nd.	K. R. P. 1.
21.	K. Kt. P. takes P.	K. to R 2nd.
22.	Q. K. Kt. 2nd.	Q. Q. B. 2nd.
23.	Q. K. 2nd.	Q. P. 1.
24.	R. K. B.	Q. Q. B. 3rd.
25.	P. takes Q. P.	P. takes P.
26.	R. K. B. 2nd.	Q. takes Q. B., wins.

PROBLEM No. 7.

By J. W.

BLACK.



WHITE.

(White to play, and mate in four moves.)