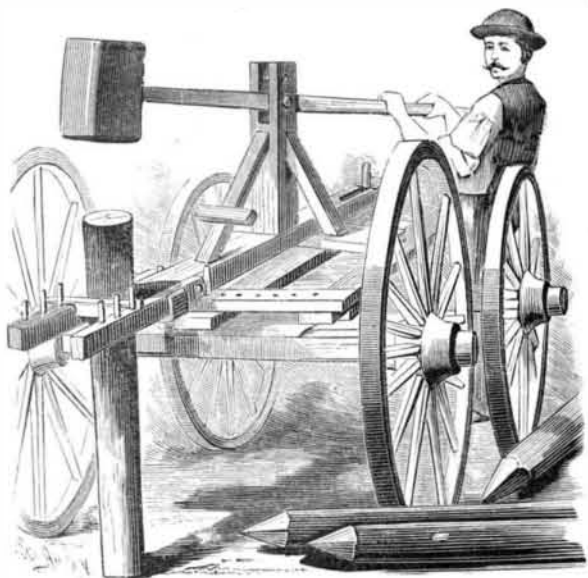


IMPROVED POST DRIVER.

The engraving represents a post driver arranged in connection with the running gear of an ordinary form of farm wagon. The post driver consists essentially of a central beam, through a slot in one end of which is passed a short vertical standard, carried by the forward cross strip of the frame of the wagon. The rear end of the beam is supported by the rear cross strip, in which is a series of holes, so that the beam can be held in different positions by pins. Pivoted in a slot in a securely braced vertical standard, carried by the beam, is a lever, provided at its rear end with a heavy hammer. To the rear end of the beam are pivotally connected guides.

The main beam can be swung to any desired position, and as its slot is quite long, it may be moved forward or backward, in accordance with the position of the post

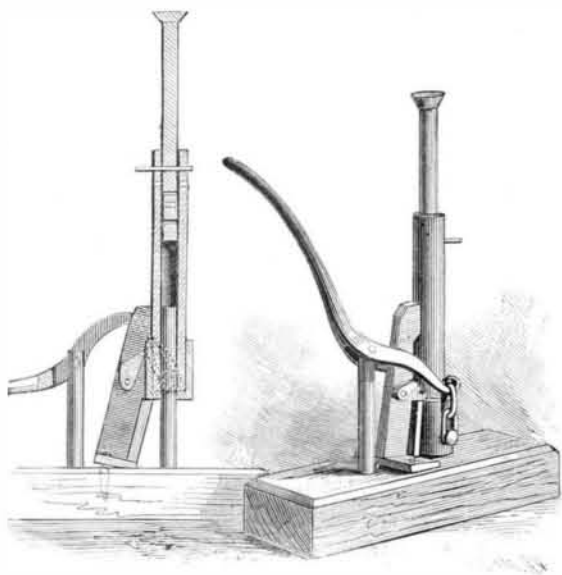
**REISOR'S IMPROVED POST DRIVER.**

to be driven. In operating the machine, the beam is placed so that when the upper end of the post is resting against the extended end of the beam, the post will be in a vertical position, the guides being then swung up out of the way. After the post has been thus placed, the guides are turned down and their cross bar is put in position to hold the post against the end of the beam. The operator then raises the hammer by depressing the opposite end of the lever, and allows it to drop upon the post, the force of the blow being varied by the amount of elevation given to the hammer.

This invention has been patented by Mr. Andrew S. Reisor, of Reisor, La.

LIFTING JACK.

The annexed engraving shows an improved form of adjustable wagon jack constructed so as to be semi-automatic in its operation. Rigidly secured to the heavy base block are two vertical standards. A tube is arranged about one standard, being stepped in and rigidly fixed to a sleeve formed with lugs, upon which there are placed two chains, the upper links of which are engaged by hooks formed at the ends of the arms of a forked lever pivoted to the other standard. In the upper end of the tube there is an adjustable rod.

**CHURCHILL'S LIFTING JACK.**

The tube and its rod are raised when the lever is depressed, and are held in an elevated position by a catch arm formed with a shoulder, which, as the tube is raised, falls in below the lower edge of the sleeve. When it is desired to lower the tube, the lever is depressed. This movement causes the sleeve to strike against an inclined face on the upper end of the catch arm, which is moved away sufficiently far to permit a cam faced guide pivoted to the arm to fall to a horizontal position, as shown in the right hand figure,

when it will hold back the catch arm during the descent of the tube.

This invention has been patented by Mr. J. W. Churchill, of Clark's Green, Pa.

A Remarkable Artesian Well in Iowa.

Quite a sensation was made on Aug. 31 by the extraordinary force developed by an artesian well at Belle Plaine, Iowa. It had been drilled four inches in diameter to a depth of 180 feet, when suddenly a great volume of water burst into the air that was at first entirely uncontrollable, and an engineer was summoned from Chicago to assist in the emergency. The flow afterward subsided somewhat, though the well continued for a further period to yield an estimated quantity of 5,000,000 gallons daily, with a pressure of 25 pounds to the square inch. The well was sunk through the surface drift, shale, and blue clay, till it is supposed to have reached a stratum whose outcrop was about twenty miles distant, with an average dip of fifteen feet to the mile, thus giving an immense pressure from the distant fountain head.

BASEBALL-SCIENTIFIC BATTING.—NO. 2.

BY HENRY CHADWICK.

In the science of batting, there are certain rules, the neglect of which must prove damaging to the batsman's general play. First comes the rule which requires that he should "stand at ease" in his position when he takes his bat in hand; that is, to stand so as to be able to swing his bat to meet the ball with the easiest movement at command. Then comes the rule governing the proper method of swinging the bat forward to meet the ball with the best effect; in this latter rule, the manner in which the batsman stands has an important bearing. Then follows the proper method of poising the bat preliminary to making the forward swing in striking at the ball, which is also very important in making the hit effective. But the most important rule in the science of batting, which has, up to within a few years past, been but little understood, is that governing what is technically known as "facing for position," that is, taking your stand at the bat in such a manner as to control the forward swing of the bat to meet the ball so as to send it in the direction of either of the three outfield positions of the field at your option. The more intelligent class of professionals have found it expedient to pay more attention to this feature of scientific batting than hitherto, and the result has been a proportionate increase of skill in their batting. There are many points in scientific batting to be learned before a batsman can excel in strategic hitting. First, he must practically ascertain the bearings of the natural swing of the bat in meeting the ball, and the different effect of a swift stroke from a slow one in forming these bearings. Measuring the semicircular line of the swing of the bat, from the line of its position as it is held over the shoulder in readiness to strike to the point of its meeting the pitched ball, it will be seen that the swiftness of the forward stroke has much to do with giving special direction to the hit ball. A slow stroke will cause the bat to meet the ball back of the line of the home base, over which the ball has been pitched, while a medium stroke will meet the ball on the line of the base, and a swift stroke forward of that line. The effect of the slow stroke would be to send the hit ball to the right field; that of the medium stroke, to center field; and that of the swift stroke, to left field. The appended diagram (Fig. 1) illustrates the lines of these several strokes, in accordance with the forward swing of the bat against the ordinary speed of the pitched ball. The varied speed of the pitched ball, however, has to be taken into consideration, inasmuch as a slowly pitched ball would meet the slow stroke of the bat on the line of the base, instead of back of it, while a swiftly pitched ball would also meet the swift stroke of the bat on the line of the base, instead of in front of it. The pace of the pitched ball therefore becomes an important factor in estimating the force of the forward swing of the bat, in the effort to give the ball a special direction.

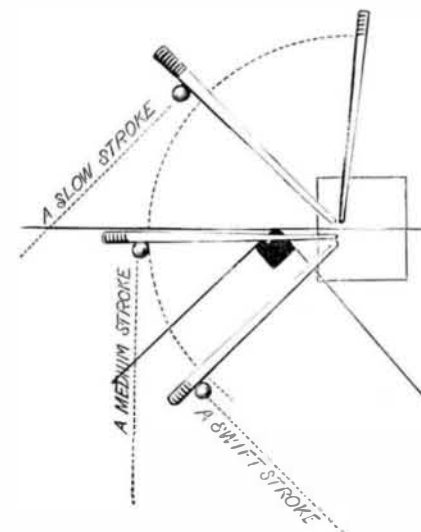
In practically carrying out this theory of measuring the stroke of the bat with the pace of the ball, we bring into play the art of facing for position, which art is simply that of standing in three separate positions, in order to send the ball from the bat in three distinct directions to the outfield.

This "facing for position" in batting is one of the great features of scientific batting, and it is a subject calling for some study of the rules which govern it. Just as the batsman stands at the bat, just so will the regular forward swing of the bat meet the pitched ball, all things, of course, being equal; that is, presuming that the rapidity of the

forward swing of the bat is in right proportion to the speed of the pitched ball. But the general direction of the hit ball, from a properly proportioned swing of the bat, is governed by the manner in which the batsman stands when prepared to strike at the ball; that is, in proportion as he "faces" for the right, center, or left field. The appended diagram (Figs. 2 and 3) illustrates the lines of this "facing for position."

A close study of the various forces governing the swing of the bat in meeting the ball, and of the above rules applicable to "facing for position," will fully prepare a batsman for scientific batting.

From the moment the batsman takes his stand at the bat to the time he hits a fair ball, he should stand in proper form for hitting every single ball pitched to him. Unless he makes this a habit, he will surely be found a ready victim, to a more or less extent, for a skillful, strategic pitcher. The rule with a good batsman is always to be in form all the while he

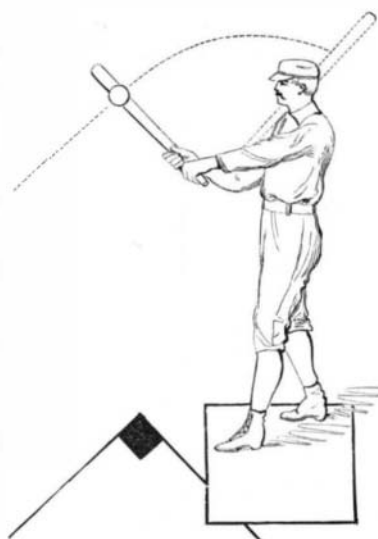
**Fig. 1.**

is at the bat. This is specially necessary to meet the uncertainties of a curved line delivery.

Pasteur's Treatment for Rabies.

The *London Lancet* says: Another victim to hydrophobia, after having been submitted to M. Pasteur's anti-rabic treatment, has been reported. The subject was a young girl of eleven years of age, who was bitten at Chassagne, in the department of the Jura, on April 27 last. She was taken to M. Pasteur's laboratory nine days after. During the fifteen days she remained in Paris she went through the usual inoculations, with ten bouillons of progressive strength; after which she was declared cured and sent back to her family. On June 13 the girl presented the first symptoms of hydrophobia, and refused all nourishment. She afterward presented all the other symptoms, and died on June 17, in a fit of extreme violence.

And still another patient of M. Pasteur's is reported to have just died. The patient was a Russian woman who was bitten by a wolf, and, after having undergone the usual inoculations at the laboratory, returned to her home, where she soon after succumbed to hydrophobia. This death is the fourteenth out of fifty-four persons bitten by wolves, which would give an average mortality of twenty-six per cent., which is about

**Fig. 2.****FACING FOR A RIGHT FIELD HIT.****Fig. 3.****FACING FOR A LEFT FIELD HIT.**

the average given in recent statistics of deaths from the bites of wolves.

Intelligence has just been received from St. Petersburg to the following effect: On the 3d and 4th of May last, seven persons (five children and two women) were bitten by a mad dog in the district. They were immediately sent to Paris under the care of Dr. Winow, to be treated according to Pasteur's method. Of the seven patients, three have died since their return to Russia.