PLAYING THE PIANO.

謝敞. H. A. KELSO ADVANCES VALUABLE NEW THEORY.

Austomy, Physiology and Masyledge of Acoustics and Feychotogy Beessary for a Thorough Mastery of the Pianeforte.

(Chicago Letter.)

A KELSO, of Handel Hall, Chicago, presents a new thepry of plane playing based upon principles of anatomy, physiology. acoustics and psy chology, and in an exhaustive article which he has published on the sub-

ject undertakes to show how plano playing may be reduced to a scientific basis. He advises the study of an stomy, that the teacher may learn to develop a good "plano hand," of physiclosy that we may learn the fundamental causes which operate in velocity playing. We learn, he says, to avoid and successfully treat weeping sinews and musician's camp. By the understanding and application of the laws geverning muscle innervation we learn to control and husband the potent force termed nervous energy. Misdirected perve energy makes sickly plano players and unhealthy music is the result, Extracts from his article follow:

Better modes of developing the powof memorizing and of preserving untouched the pupil's individuality FIG. 2. MOVEMENT IN STACCATO are the result of psychical study. That we should study acoustics "goes without saying," as we cannot know too much of sound. Pedal management, tonal coloring and the science of harmony are all better understood through a knowledge of the properties of acoustics. A knowledge of the anatomy of the hand, wrist, fore and upper arm gives the student greater facility in individual muscular control. In consequence of the control thus gained, the whole arm becomes more expressive. A crisply-leggiero effect can best be produced by energizing the souscies of the upper arm and those of the fingers, while relaxing the wrist muscles. This is a very important point, and is simply the application of the mechanical principle of the resistsames being equal to the force of the

A development of the pronator muscles in the forearm renders possible a good position of the hand for playing cetaves, arpeggios, scales, chords and trills with the fourth and fifth fingers. Rolling octave playing in dependent upon a separated control of the su-



FIG. 1 MOVEMENT IN STACCATO OCTAVE PLAYING

inster and pronator muscles from Chase of the fingers. Speed requires the shortening of the latent period of the muscle, and this can be accomplished only by taking up the slack the tendons. The principal muscle macerned in producing a crisply staccale effect with finger action is the exensor, es upon this muscle depends playing, a subject which has heretofore the brevity of tone. By elevating the wrist, curving the second finger and depressing it at the knuckle-joint, the inger is in the best possible position for producing the effect.

The physiology of velocity playing a mabject of great interest to the practieni plane teacher. In some persons anidity of movement is natural, the maralar times is very irritable and restains of speed do not demand great fort. In others the muscles, although energetic, obey the orders of the will with considerable slowness. A great expenditure of nervous energy is necesmary to obtain a rapid movement. Il natrations of these differences may be noticed in the gymnasium in fencing. bearing, rowing, walking and in piano playing. Pfluger is authority for the statement that when a nerve is stiffniated by action of the will or otherwise, the stimulus received by the serve increases in thtensity as i eaches the muscle.

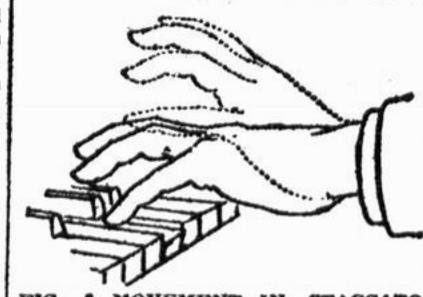
The three attributes of tone are force. sitch and quality. Force is dependent men the amplitude of the ribrations, Pitch is dependent upon the vibrational number—the greater the number the igher the pitch. From these facts we deduct principles of study which are meticable to an intelligent student of ne playing. The overtones of tones ed in the upper registers are of meh great vibrational number that the fails to establish a definite pitch them. Then, again, the waves of meh tones are so short that they vanalmost immediately after sounding: therefore the pedal, which permits the to be re-enforced, may be used freely in the upper register than I in intensity to about four in the register. It is possible by a delilation of the pedal to oblitlecordant harmonies in the out losing an organ point in ver register, which sometimes of

hich is of equal imposione

intervals either in the accompaniment or melody, may be made to sound legato without the use of the pedal, by releasing the finger from the key slowly, thus damping the tone gradually. Many beautiful effects may be produced

by this use of the pedal. All movements of the body are either natural, habitual or hereditary. In certain states of consciousness we bring into play certain muscles just as naturally as water seeks its lowest level. It is for this reason that a pupil is sometimes taught to play a passage with widely differing movements of the hand and arm by different teachers. Thus it not infrequently happens that an instructor scatters broadcast over the land, through his pupils, peculiar mannerisms which he inherited from his ancestors. It may readily be seen that this is radically wrong, and that such would not be the case were all teaching based on philosophic princi-

In playing the plano habits will necescarily be formed, and movements based on the natural laws of expression of the body are more easily acquired, and when acquired enable us to express musical thoughts more clearly and more forcibly than habits formed



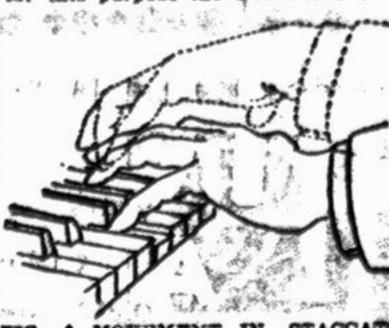
OCTAVE PLAYING.

at haphazard. Technic, as applied to plano playing, is the power to express musical thoughts. This involves not only the ability to play the proper notes with correct fingers, but requires such control of the muscles and nerves that all gradations of tonal coloring may be expressed. Piano playing has been compared to an electric currentthe musical thought emanates from the brain; passes through the nerves which move the muscles to be used, the finger strikes the key, the hammer strikes a wire, which in its turn produces a tone, the ear conveys the tone back to the brain, thus completing the circuit. Weak or sluggish muscles, therefore, not readily yielding themselves to the nervous stimulus flowing from the brain, will break the circuit, and the musical phrase will fall short of the musical conception.

In plane playing the purely mental intellectual phrase finds its expression in the circumscribed movements of the fingers and hand, using the knuckles or wrist as the center of motion. Passages from Bach's "Fugues and Inventions" admirably illustrate this statement. An emotional phrase demands more freedom of movement, which the firmness of the elbow-the emotional center-and length of the forearm readily supply. Climaxes and passionate outbursts of musical feeling demand the added strength and wider swing through space of the entire arm from the vital center of the shoulder.

It is not always necessary that such broad gestures from the shoulder as are used in oratory should be used in piano playing, as the energy can be brought from the shoulder, the vital center, also from the mental or emotional centers or from various combinations of the vital, mental or emotional centers without "tearing passion to tatters." This knowledge of the psychological act reasons for the use of the upper forearm; wrist and fingers in plane been misty, and formulates thoroughly the principles of all varieties of touch.

I consider the wrist the distributing center of the energy of the upper and forearm. It is impossible for the nervous stimulus from the brain to be properly conducted to the finger tips when the many tendons that pass through nish. Here was that already famous the wrist are tense. Almost every pupil little woman, Mrs. John Harris, with beginning the study of the piano has her assistants, Mrs. Mary W. Lee and some unconscious mannerism or trick Mrs. Beck. Mrs. Harris was officially peculiar to himself of using the agents | recognized in the medical branch as the of expression. Before eradicating these bad habits and building up those which are correct, a certain condition of passivity or relaxation must be achieved, just as the potters' clay must be rendered soft and plastic before it can be modeled into the desired forms. I find for this purpose the Delsartean exer-



MOVEMENT IN STACCATO OCTAVE PLAYING.

cises known as relaxing or devitalizing of inestimable value to the beginner and advanced student alike.

We can utter so many words with

one breath, and when that is exhausted we must draw upon the reservoir-the air-for another supply. We can play a rapid succession of notes with a riven supply of nerve energy, when that is exhausted we must draw upon the reservoir the brain-for another supply. This necessity of our physical nature is the basis of rhythm, and if the regularly returning inclination to build up the waste is unheeded. health and strength will be impaired. Do not wait until a sensation of weariness is felt before renewing the energy. as we should no more play with exhausted strength than speak with exausted breath.

MINISTERING ANGELS ON THE FIELD OF BATTLE.

Women Who Nursed Wounded Soldiers-Gen. O. O. Howard Writer in Praise of Their Devotion - They Showed Great Courage.

(Gen. O. O. Howard's Letter.)



T is the accepted belief that civil wars are characterized by extreme vindictiveness and cruelty. No doubt this is in general true; but the great civil war in our own country-notwithstanding some deplorable excesses

appears as a remarkable exception to this rule. In no war of recent times, probably, were more important steps taken in the direction of greater humanity-especially in the treatment of the wounded, both friend and foe. And why? How was it possible that a struggle so bitter should bring about a result so unexpected? I believe that it was chiefly due to the efforts of noble and self-sacrificing women, whose influence was felt through the whole army. Men could not become altogether ruthless with these ministering angels in their midst, enduring all hardships with gentle patience, meeting all dangers with quiet courage, ever seeking to heal what war was seeking to

family circle and took a more or less public part in providing for the wants them to the vicinity of the battle fields. Some went as mations or attendants; many as the agents of some society;

What Mrs. Harris brought to the front after several of our bloody engagements is exemplified in one of her letters from the Peninsula-a letter written in June, 1862, just after the battle was myself recorded among the wound-

ed. The steamer Vanderbilt, lying at the dock, was about to take the disabled from the "White House Landing," Va. Mrs. Harris writes: "When we went aboard the first cry we met soldiers. Others, shot in the face of neck, begged for liquid food. With feelings of a mixed character, shame, indignation and sorrow blending, we turned away to see what resources we

The graphic account of the way the brave women who stepped out of the them-and indeed the spirit of home was there.

of the wounded and dying soldiers. son, the wife of the lieutenant-colonel Some gathered up the contributions of my regiment, went out with her husfrom homes far and near, and carried | band in the beginning of the war. What others simply to do what was possible | time and talents to the interests of our with two skillful hands to alleviate a soldiers. At first she aided the sick little of the suffering with which they | and the overworked by writing letters During the winter of 1862-63, I com- assidnous labors, night and day, in manded the second division of the Sec- | hospitals. She was a swift and cheery ond Corps at Falmouth. In front of worker; the faces of the men in a field my division, near the Rappahannock hospital, or in the rooms of a house River, stood a large house which was I appropriated for the sick and wound-

of Fair Oaks. I speak feelingly, for I was for tea and bread. 'For God's sake give us bread,' came from wounded could muster to meet the demand. A box of tea, a barrel of cornmeal, sundry parcels of dried fruits, a few crackers, ginger cakes, dried rusk and jars of jeliles and pickles were seized upon. Soldiers and contrabands were impressed into service. All the cooking arrangements of three families were appropriated (by permission), and soon three pounds of tea were boiling, and many gallons of gruel blubbering. In the meantime, twenty-five loaves of bread-all we could buy-were cut into slices and jeliled; pickles were put in readiness, and in an incredibly short time we went back to our poor suf-

wounded men received the relief thus speedily brought would fill a chapter. Many had been several days without a particle of nourishment. In delirium some took Mrs. Harris for mother, for sister, or other precious friend, and died in the happy thought that their I knew personally a few of the 500 own sweet home had actually come to

> From my own state. Mrs. S. S. Samp-Mrs. Harris did for the ladies of Philadelphia, Mrs. Sampson did for the ladies of Maine. She devoted her whole for them, and after the first battle by

then rather lonely, having been denuded by the devastations of war of all out-houses, fences and shrubbery. It was usually called the "Lacey House," I think we may denominate it at this time as a reserve hospital, for here were to be found many articles of food and medicine that the excellently organized field hospital could not fursecretary and agent of the Ladies' Aid Society of Philadelphia; but to us in the army she was known as a motherly woman of exhaustless sympathy and wonderful resources. On Sundays, I think usually in the forenoon, and week-day evenings, she gathered many soldiers into one of her large rooms for prayer and worship. As often as possible, when she by note or verbal message commanded me. I went thither to participate in the exercises; and she honored me by calling the oft re-"Gen. Howard's prayer meeting." But it was really hers, and she should have named it, in Presbyterian nomenclature, "The Harris Assembly." A little before this, when Mrs. Harris, then at Washington resting after her tireless labors among the sick and wounded on the peninsula, heard of our dreadful defeat at Fredericksburg, she hastened to the front to do all that lay in her power for the hundreds of poor fellows that were too badly hurt or too ill to be carried away.

Her favorite field of labor was in the the suffering there she carried constant sheer and welcome-reliefs of every in camp, whilst McClellan and Johnsort, sent by the generous women of a blessing and a benediction to every lonely and despairing heart in the hospital she visited.

One of the ablest Presbyterian clergymen now in ordination was private soldier, I believe in a Maryland regiment. He was then rather a roistering young fellow. A soldier comrade of pronounced piety and correct life strongly urged him to go to Mrs. Harris' meetings. The result was his conversion; and as soon as the war plug?" ceased he studied for the ministry. Whenever we do wrong something Thus Mrs. Harris' leaven was in-

ed, would always brighten as they saw her come, with a kind word and a sympathizing tear, with sunshine behind it, and just the needed soup, tea, bread or socks or other requisite garments in her hands! Her entrance was a home reminder, a joy, a blessing. She could write and get off more letters in a given time than a stenographer, and so linked hundreds of soldlers with their cherished homee. No gallant officer from Maine closed up the four years' service with a better record than Sadie Sampson. After the war, now a widow, she put in operation and kept up as long as needed an asylum for the orphans of soldiers near her home in Bath. She commanded universal love and respect among all classes where she labored. After a time she became the soldiers' efficient friend at the great pension office in Washington. There was no official there who could more promptly get a wrong righted than this unselfish, intelligent, ardent worker. Her usefulness has been so great that she has been kept in the office, in spite of radical changes of administration.

When I organized my brigade at Camp California, the winter of 1861-62, pitched about four miles in front Alexandria, my own beadquarter tents were near the Sixty-first New York Regiment. Francis C. Barlow, then apparently but a youth, was the lieutenantcolonel. Very soon after we went into camp his wife took a room at Mr. Richard's house, situated near my brigade, Mrs. Barlow was a woman of culture and full of patriotic sentiment. She at first gave informal receptions to the field hospitals of the Sixth Corps. To friends of her husband, and added much to the social life of that winter ston, many miles asunder, were watch-Philadelphia. Her beaming face was ling each other and waiting for the spring and more passable roads. Mrs. Barlow was a truly brave woman. She kept always near the front and was quickly on hand to nurse her gallant husband, who, soon promoted to general was pretty sure to be wounded in every engagement.

"Popper," the little boy asked, "what kind of a horse is that they call a

"A balky horse, my son. They call him that because be is a stopper."-Cincinnati Enquirer.

Her Lover Understood, A Lancashire lady has been relating a rather pretty story about a factory

proposal made to her. "The young woman could not write or read writing, and one day brought a letter to me to read for her. It contained an offer of marriage.

"I happened to know that the writer was a deserving young artisan, so I said to her: 'Now, you must consider this matter very seriously, and if you like to come to me when you have made up your mind I will write a reply for you.

"A day or two afterward I met the girl and asked her if she wanted me to answer the letter for her. 'Oh, that is all right,' said she, looking radiant and pleased. 'I've settled it. I answered it myself."

"'Why, how did you do it?' I asked. "And then she told me that she could make a capital 'I' and that she stuck on the paper a piece of wool after it for 'wull'-'I wull."

STATE OF OHIO, CITY OF TOLEDO, LUCAS COUNTY, M. Frank J. Cheney makes outh that he is the senior partner of the firm of F. J. Cheney & Co., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of catarrh that cannot be gured by the use of Hall's Catarrh Cure. FRANK J. CHENEY. sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1886.

A. W. GLEASON, Notary Public. Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system, Send for testi-

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What a Farm Is.

A Kansas girl was sent east to school this fall. "What do you know, my child?" the head teacher asked her. "Oh, farming," the new pupil replied. "Well, tell me what is a farm?" "A farm is a body of land surrounded by a barb wire fence," the little maid said.

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Legal Point.

Rivers-And so, if you caught a man in the act of robbing your chicken house you would shoot him, would you? How do you get around the commandment, "Thou shalt not kill?"

Brooks-That was an ex-post-facto law. It is unconstitutional.

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If you want to quit tobacco using easily and forever, regain lost manhood, be made weil, strong, magnetic, full of new life and vigor, take No-To-Hac, the wonder-worker that makes weak men strong. Many gain ten pounds in ten days. Over 400,0 0 cured. Buy No-To-Bac from your druggist, who will guarantee a cure. Booklet and sample mailed free. Ad. Sterling Remedy Co., Chicago or New York.

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girl's way of answering a marriage

Politicut Item. "What is the difference," the major asked, between puffs at his seed and Havana filler with the Wisconsia wrapper--- "what is the difference between Mr. Bryan and Buffalo Bill?"

"Give it up," replied the man with the winter overcoat and the tan bicycle shoes, "what is the difference between Mr. Bryan and Buffalo Bill?"

"Buffalo Bill," replied the major, has a show."--Chicago Times-Herald.

Several Grand Excessions On October 20th a homeseekers' excursion via the Missouri Pacific railway and Iron Mountain route to the west and southwest, at one fare, plus \$2, for the round trip, tickets good to return \$1 days from date of sale, with stopover privileges on going trip. Write for particulars and land books.

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Kind of Him.

She-Everybody says you married me for my money. He-But I didn't, dear. I know you look it, dear, but I didn't.-Indianapolis Journal.

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