

# PLAYING THE PIANO.

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

Study of Anatomy, Physiology and Knowledge of Acoustics and Psychology Necessary for a Thorough Mastery of the Pianoforte.

(Chicago Letter.)



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

ject undertakes to show how piano playing may be reduced to a scientific basis. He advises the study of anatomy, that the teacher may learn to develop a good "piano hand," of physiology 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 governing muscle innervation we learn to control and husband the potent force termed nervous energy. Misdirected nerve energy makes sickly piano players and unhealthy music is the result. Extracts from his article follow:

Better modes of developing the power of memorizing and of preserving untouched the pupil's individuality 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 muscles 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 resistance being equal to the force of the blow.

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

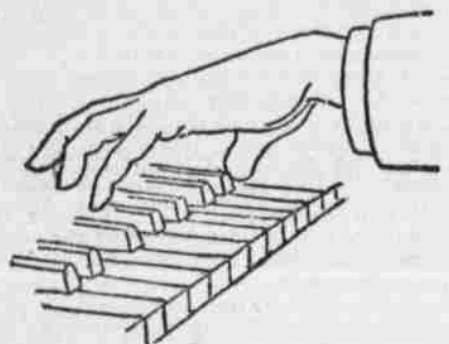


FIG. 1. MOVEMENT IN STACCATO OCTAVE PLAYING.

pinator and pronator muscles from those 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 of the tendons. The principal muscle concerned in producing a crisply staccato effect with finger action is the extensor, as upon this muscle depends the brevity of tone. By elevating the wrist, curving the second finger and depressing it at the knuckle-joint, the finger is in the best possible position for producing the effect.

The physiology of velocity playing is a subject of great interest to the practical piano teacher. In some persons rapidity of movement is natural, the muscular tissue is very irritable and exercises of speed do not demand great effort. In others the muscles, although energetic, obey the orders of the will with considerable slowness. A great expenditure of nervous energy is necessary to obtain a rapid movement. Illustrations of these differences may be noticed in the gymnasium, in fencing, boxing, rowing, walking and in piano playing. Pfleger is authority for the statement that when a nerve is stimulated by action of the will or otherwise, the stimulus received by the nerve increases in intensity as it reaches the muscle.

The three attributes of tone are force, pitch and quality. Force is dependent upon the amplitude of the vibrations. Pitch is dependent upon the vibration number—the greater the number the higher the pitch. From these facts we deduct principles of study which are practicable to an intelligent student of piano playing. The overtones of tones sounded in the upper registers are of such great vibrational number that the ear fails to establish a definite pitch for them. Then, again, the waves of such tones are so short that they vanish almost immediately after sounding; therefore the pedal, which permits the tone to be re-enforced, may be used more freely in the upper register than in the middle or lower. One tone sustained by the pedal in the middle is equal in intensity to about four in the upper register. It is possible by a delicate manipulation of the pedal to obliterate the discordant harmonies in the upper, without losing an organ point in the lower register, which sometimes of necessity must be sustained by the pedal.

A point which is of equal importance with the manner of striking is that of the manner of leaving the keys, for upon this hinges the entire system of legato octave playing. Wide skips, such as a bass note and a chord, and broad

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 principles.

In playing the piano habits will necessarily 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

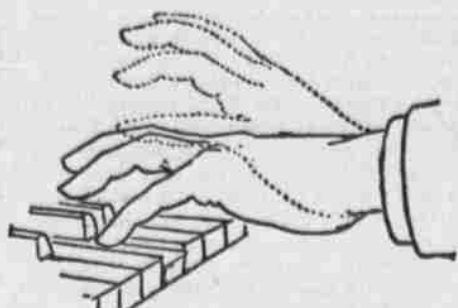


FIG. 2. MOVEMENT IN STACCATO OCTAVE PLAYING.

at haphazard. Technic, as applied to piano 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 current—the 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 piano 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. Calmness 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 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 divisions of the arm gives clear and exact reasons for the use of the upper, forearm, wrist and fingers in piano playing, a subject which has heretofore 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 the wrist are tense. Almost every pupil beginning the study of the piano has some unconscious mannerism or trick peculiar to himself of using the agents 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-

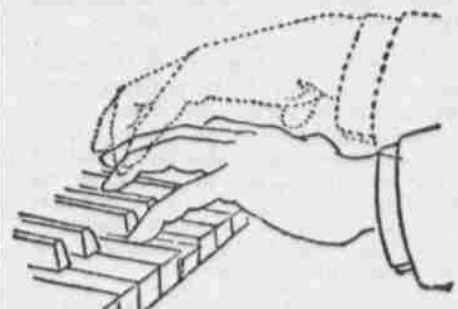


FIG. 3. MOVEMENT IN STACCATO OCTAVE PLAYING.

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 given supply of nerve energy, and 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 recurring 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 exhausted breath.

Whenever we do wrong something good is done.

# WHEN HE WAS HONEST

WHEN HANNA'S GOLD HAD NOT TOUCHED HIM.

Terry Powderly Was For Free and Unlimited Coinage of Silver—Extract from His Article in the North American Review Printed in 1891.

Terrence V. Powderly, ex-general master workman, was once an honest man with honest convictions. Now he is receiving gross gold for his services to the enemies of labor—Mark Hanna, H. C. Payne and the republican party. In 1891 he wrote for the North American Review an article entitled "The Workingman and Silver." Here are some extracts therefrom:

"The mechanic and the laborer are as deeply interested in the free coinage of silver as the farmer can possibly be, since in earning a livelihood and in paying as they go all are equally concerned in the medium of exchange. The farmer has been heard on the money question, and the city workman, although he has not spoken out on the subject, holds views identical with those of his neighbor on the farm. . . .

"In congress, at the behest of the owners of gold, silver was secretly and stealthily demonetized. This the laborer did not see, nor the president who signed the bill; and within the last few months statesmen, who were senators and congressmen in 1873, when the demonetization of silver was accomplished, have admitted voting for the bill without knowing that it contained

# ENGLISHMAN TO AMERICANS.

President Ives Issues a Coercion Manifesto to "Q" Railroad Employees. Creston (Iowa) Evening Advertiser, Sept. 11, 1896: The following is an exact copy of a circular sent by the B. C. R. & N. Railway company to every one of its employees in Iowa:

BURLINGTON, CEDAR RAPIDS & NORTHWESTERN RAILWAY.

Office of the President. To the Employees of the C. B. & Q. R'y.:

Is not this money good enough for you? Why should any man, especially a railroad man, want money which will purchase but half as much as this?

The amount paid to you in 1895 was \$1,617,119.39. One million, six hundred and seventeen thousand, one hundred and nineteen dollars and thirty-nine cents.

If the doctrines of the Silver Party are true, THE PRODUCTS OF THE FARM ARE TO BRING A HIGHER PRICE.

DO YOU WISH TO VOTE TO INCREASE THE PRICE OF THE SACK OF FLOUR, OR THE MEAT YOU BUY? If this doctrine is true, all articles bought from foreign countries will be doubled in price. Such as Coffee, Tea and Sugar. Do you wish to pay more?

The Rate of Freight and for Passengers on the Railways are fixed by law, and cannot be raised. The Railway Company must pay you in the money it receives, and cannot PAY YOU more than now, for the reason that IT WILL RECEIVE no more than

# OPEN YOUR EYES NOW

THE WRONG MUST BE RIGHTED IN NOVEMBER OR NEVER.

We Cannot Longer Follow the Path Laid Out for Us by the Financiers of England—Davis of Kansas Quotes Good Authority.

Mr. Davis, of Kansas—The president rightly said that "the inexorable laws of finance and trade" can not be defied with impunity. So, having copied the financial policy of England, is it strange that we must suffer the same penalties? In 1865 the people of the United States emerged from the greatest war of modern times. They had been successful. They had saved the best government on earth. Money was plenty, times were good, the national debt was not large, and, as individuals, we were "out of debt and prosperous." We felt as did the British people after their great victory at Waterloo, and the banishment of Napoleon. The British system of contraction, inaugurated here in 1866, began to tell on the clearing house transactions in 1870. In 1873, the same policy struck down silver. This was at once followed by a disastrous panic, distressing the entire country, as had never before been witnessed. According to Senator Logan, it was a "money famine;" and it has continued ever since with only temporary abatements.

I have now shown the similarity of the British and American financial policies instituted for the same general purpose, under similar conditions

# MORE EVIDENCE.

Convincing Testimony of the Ruin Wrought by the Single Gold Standard in Belgium.

Reprinted by Request.

Moreton Frewen in Chicago Record, Sept. 15, 1896—The enclosed letter to the minister of the United States at Brussels reaches me from M. Allard, the distinguished Belgian publicist. Coming from a source free from political bias, it is likely to interest equally the supporters of Mr. McKinley and those of Mr. Bryan; each party being, as we are assured, equally in earnest to restore silver to world's currency, the methods only being different:

"To His Excellency, the Hon. James Currie, United States Minister, Brussels: I feel it my duty to answer without delay the letter which you kindly addressed to me yesterday, but I beg your forgiveness if here in the country, far from my office and my references, I am less explicit than I should wish to be.

"I follow in my answers the same sequence which you have adopted in your questions.

"1. The law of Belgium gives to every debtor the unquestioned right to pay, at his option, in gold or silver, whether this debtor be the bank, the government, or a private citizen, native or foreign.

"2. No official estimate exists of the quantity of money actually in circulation in Belgium, but this much can be affirmed, that practically no gold is met with; so that the National bank, which alone issues bank notes in Belgium, never pays gold when these notes are presented, but always pays silver.

"3. At its birth (in 1831) Belgium adopted the French monetary system, based on the two metals, gold and silver—i. e., bimetallicism.

"But about 1851, when the gold mines of California and Australia produced gold in large quantities, Belgium demonetized gold and became silver monometallic.

"About 1865, however, business became so depressed in Belgium that the people forced the minister, M. Frere-Ooban, to retire, and obliged the government to become again bimetallic.

"About 1873 France prevailed upon the Latin states—France, Italy, Belgium, Switzerland—to suspend the coinage of silver, which suspension established here a kind of limping monometallicism—for, though silver can no longer be coined, the then existing silver coins continue to circulate within the Latin union, which union dates from 1865.

"Since 1873 a crisis, consisting in a fall in all prices, exists continually, nor does it appear possible to arrest its progress. This fall in prices, reacting on wages, is now evolving a social and industrial crisis.

"You ask me why we returned, in 1873, to monometallicism, limping though it be? I can perceive no other reason, unless that it was to please a certain class of financiers which profited thereby—a class supported by theories, invented and defended at that time by some political economists, notably by members of the Institute of France.

"4. You ask what influence these monetary measures have had in Belgium on industry and wages? Money, which was already scarce in 1873, has become still scarcer, and that fall in prices which was predicted has taken place. The average fall in the price of all the products of labor is 50 per cent since 1873; that of cereals over 65 per cent. Industry is no longer remunerative, agriculture is ruined and everybody is clamoring for protection by import duties, while our ruined citizens think of wars—such is the sad condition of Europe.

"5. For the last twenty years no new gold nor silver has been coined in Belgium.

"6. The mint pays for gold 3,437 francs per kilo, and for silver 220.55 francs per kilo, without any change since 1865; but since 1874 it no longer buys silver. There is thus a mint price for gold only; but gold is always dearer in the open market than the purchase price of the mint.

"Accept, M. le Ministre, the assurances, etc.,

"ALPHONSE ALLARD.  
"Directeur Honoraire de la Monnaie de Belgique, Deleque du Gouvernement Belge aux Conferees Montaire Internationales, 1892, etc."

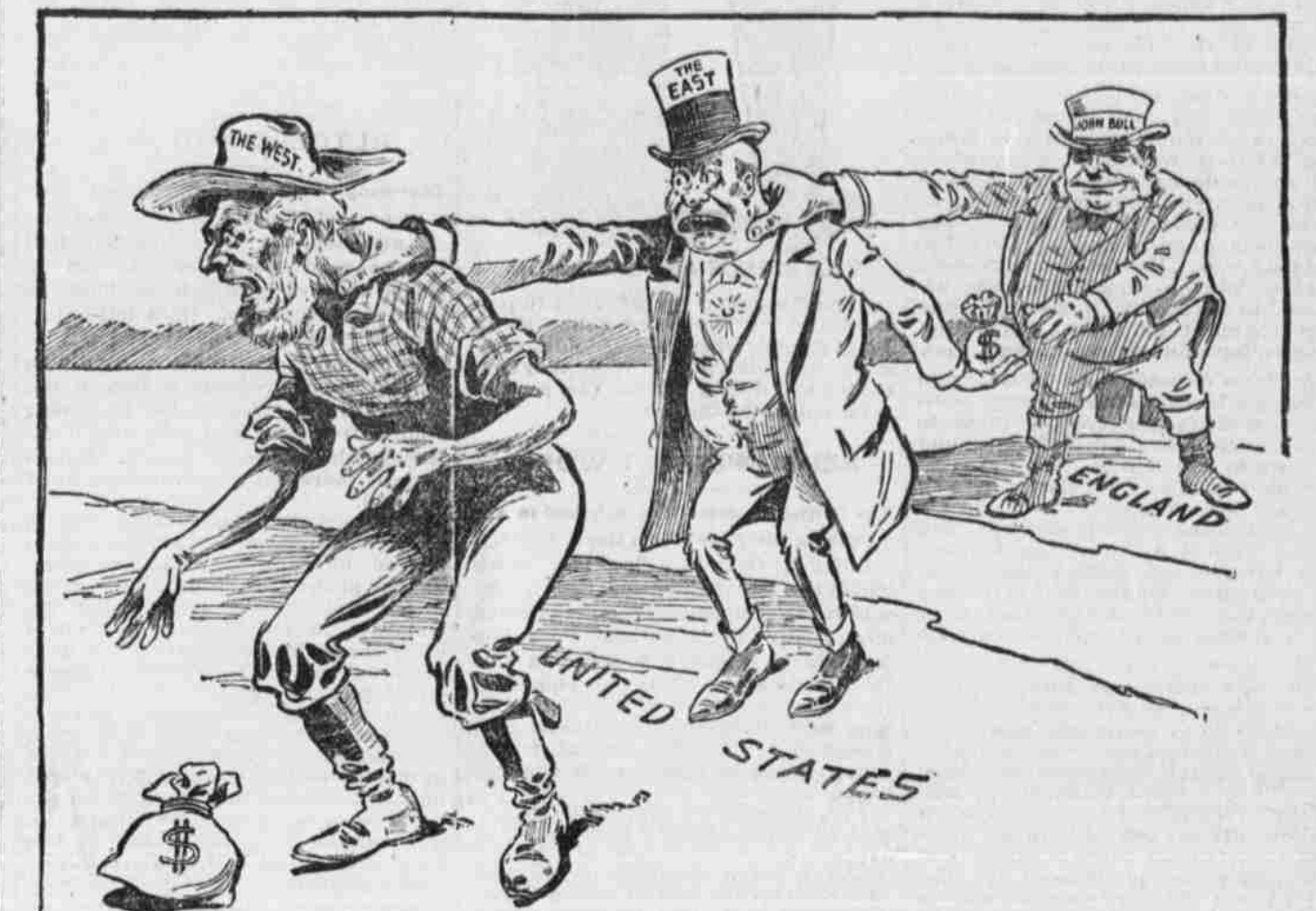
At my request M. Allard has obtained permission from Mr. Ewing to publish the letter. Yours faithfully,

MORETON FREWEN.  
No. 25 Chesham Place, Sept. 5, 1896.

The New York Sun, while professing to believe there is no possibility of Bryan's election, advises its readers, nevertheless, to protect themselves against all chance of loss from the success of the free silver craze by investing their surplus money in lands and other forms of good property, and to borrow more money to invest in the same way. This concedes the very point for which bimetallicists have so strongly contended, that the opening of the mints to silver would cause money now hoarded to seek investment and increase the value of all forms of good property, and especially of real estate, which is now so greatly depressed.

Aubrey Beardsley has at last but a short time to live. A friend who saw him recently says that the artist is in a hopeless condition and that the treacherous disease, consumption, from which he is suffering, will soon put an end to his career. Beardsley is only 24 years of age, but by his peculiar methods he has gained world-wide fame as an artist. It is probable that the death of Beardsley would be a crushing blow to the decadent school in England.

# JOHN BULL'S LITTLE GAME.



It Has Been Going on Fifty Years Too Long, but it Will Be Stopped March 3, 1897.

the demonetization clause. One statesman has not denied a knowledge of the act of treachery to the people—John Sherman—and he is to-day the subject of adverse criticism by nearly every living man who sat with him in the senate when that bill was adopted without question, on his word that it contained nothing that interfered with the coinage of the silver dollar.

"Gold is the legal standard to-day because the bankers, brokers and gold owners of the world influenced congress to make it so. The people never demanded it, never uttered a sentiment that could be construed in favor of monometallicism, never petitioned congress to pass such a law. It was done when a bill with sixty-seven sections, as long as the moral law, was under discussion, and was passed through congress without question, because that body had faith in the honor of a committee of three, of which Mr. Sherman was chairman.

"THE TERM 'FREE AND UNLIMITED COINAGE OF SILVER' IS MISUNDERSTOOD. MANY BELIEVE IT TO MEAN THAT EVERYTHING IN THE SHAPE OF SILVER BULLION AND OTHERWISE WILL AT ONCE BE COINED IN UNLIMITED QUANTITIES AND THROWN INTO THE STREET. ONLY THOSE WHO HAVE SILVER TO COIN WILL TAKE IT TO THE MINT, AND ONLY THOSE WHO EARN IT WILL OR SHOULD LEGALLY BE PERMITTED TO POSSESS IT. 'BUT THEN THE FOREIGNERS WILL SEND THEIR SILVER HERE TO BE COINED IF IT IS FREE AND THAT WILL GIVE US TOO MUCH MONEY' IS ANOTHER CRY. IF A DOLLAR'S WORTH OF SILVER COMES ACROSS THE WATER, A DOLLAR'S WORTH OF SOME AMERICAN PRODUCT WILL BE EXCHANGED FOR IT, UNLESS THE FOREIGNER IS RECKLESS ENOUGH TO SEND HIS BULLION FOR NOTHING. IF HE DOES WE ARE THE GAINERS. . . .

"The cry that 'we will have too much money if silver is remonetized and made the equal of gold' is unworthy of consideration. No nation ever yet complained of having too much money or suffered through that cause. Hard times and panics are due to contractions, and not expansions, of the currency. Contraction of the currency is not possible under the government itself, acting under its constitutional right, issues the currency directly to the people without the intervention of individuals and corporations. . . .

now, notwithstanding the fact that it will be only half as good.

If Mr. Bryan is our next President the money of the country will be Silver, or Silver Notes on a Silver Basis. This Railway Company has to pay the interest on its Bonds in Gold, \$311,000, and it has to pay a Premium to get it, and thereby the interest account is increased, there will be no way to meet it except by reducing expenses, and while the pay may not be reduced, THE NUMBER OF MEN EMPLOYED MUST BE REDUCED. DO YOU WISH TO TAKE THE CHANCE OF ITS BEING YOU? Yours truly,  
J. V. IVES.

President Ives raises the issue squarely between the railroads and the farmers.

The railroad corporations through their stock jobbing departments, have contracted large debts and made those debts payable in gold.

Railroad charges being largely fixed by law, the managers of these corporations are supporting the scarce money policy, well knowing that scarce money means dear money, and that dear money means cheap prices for farm products. President Ives opposes free-silver coinage because he does not want the price of flour and meats increased.

Those who advocate the election of Mr. Bryan say that, while free coinage will raise the price of flour and meat, it will also advance the price of every other product of labor and benefit every laborer in the land.

Free silver coinage will stimulate business of all kinds, including the railroad business, and more business will necessitate the employment of more men, and the increased demand for men will bring with it an increase in wages. Which policy is best for the country? Which statement is the more reasonable?

P. S.—IVES IS AN ENGLISHMAN IMPORTED TO DO THE WORK OF THE ENGLISH OWNERS OF THE Q. R. ROAD. WHEN YOU GO TO THE POLLS VOTE TO CRUSH HIM.

Gave Half His Windows to a Neighbor.

The most benevolent man reported this year lives in Whitneyville, Me. His house having windows and blinds, he concluded that duty called him to divide windows with a man whose house had neither. Upon the strength of this conclusion he gave away every alternate window, boarded up the apertures thus made, and closed the blinds to keep the generous act from the knowledge of his neighbors.—Machias (Me.) Republican.

Our was and is a substantial copy of theirs. To show that similar crab trees bring forth the same bitter fruits, I call attention to the testimony of eye-witnesses as to the results in the two countries. Mr. Thomas Carlyle has pictured a period of monetary stringency in England in the following language:

Carlyle Said.  
BRITISH INDUSTRIAL EXISTENCE SEEMS FAST BECOMING ONE VAST PRISON-SWAMP OF REeking PESTILENCE, PHYSICAL AND MORAL, A HIDEOUS LIVING GOLGOTHA OF SOULS AND BODIES BURIED ALIVE. THIRTY THOUSAND OUTCAST NEEDLEWOMEN WORKING THEMSELVES SWIFTLY TO DEATH, AND THREE MILLION PAUPERS ROTTING IN FORCED IDLENESS, HELPING THE NEEDLEWOMEN TO DIE.

Ingersoll Said.  
Col. Robert G. Ingersoll has drawn a picture of society in this country during contraction, as follows:

NO MAN CAN IMAGINE, ALL THE LANGUAGES IN THE WORLD CANNOT EXPRESS, WHAT THE PEOPLE OF THE UNITED STATES SUFFERED FROM 1873 TO 1879. MEN WHO CONSIDERED THEMSELVES MILLIONAIRES FOUND THAT THEY WERE BEGGARS; MEN LIVING IN PALACES, SUPPOSING THEY HAD ENOUGH TO GIVE SUNSHINE TO THE WINTER OF THEIR AGE, SUPPOSING THEY HAD ENOUGH TO HAVE ALL THEY LOVED IN AFFLUENCE AND COMFORT, SUDDELY FOUND THEY WERE MENDICANTS, WITH BONDS, STOCKS, MORTGAGES, ALL BURNED TO ASHES IN THEIR HANDS. THE CHIMNEYS GREW COLD, THE FIRES IN FURNACES WENT OUT, THE POOR FAMILIES WERE TURNED ADRIFT, AND THE HIGHWAYS OF THE UNITED STATES WERE CROWDED WITH TRAMPS.

Mr. Speaker, the inexorable laws of finance and trade cannot be defied with impunity. We have copied England's financial policy, and we have suffered her disasters. We are still copying her policy and also continue still reaping the same results. It appears to be impossible for our public men to learn anything from history, or even from their own experiences, with the well-known facts thrust into their very faces.—See Congressional Record, Fifty-third congress, first session, August 22, 1893, page 372.

This is a famous year for sword fish along the Maine coast.