Artificial Rainfall.

sive to warrant its general use, but possibly cheaper explosives will be found. It has

been proposed, among other things, to at-tach 25 pounds of dynamite to a toy balloon and then send a flock of such balloons into the air with lighted fuses attached. In some

way or other there is no doubt the arid por-tions of the country will soon be brought under splendid cultivation. They com-prise some of the most fertile spots on the

Annihilation of Smoke.

the large number of central stations which

ammonia and sulphur can be condensed and recovered and yield a handsome profit.

It is further surmised that "it is really not too much to prophecy that future electric light companies can emulate the gas com-panies' example in the matter of by-prod-

ucts, and can have better burning fuel, absence of the smoke nulsance and valuable

products in chemicals, which shall even re-

What is stated to be an improved method

of etching glass has been patented in En-

gland. It differs from the older methods in

the fact that etching is accomplished by a

cold process with the aid of rubber stamps,

the etching of such articles as bottles, lamp glasses, glass plates and similar objects being considerably accelerated, and the cost of treatment reduced. A special etching

be formed in the gutta-percha bottle which

is used for containing the solution, in conse-quence of the liquid not having been used

A Line-Throwing Gun.

Another addition to the list of recently

which is in the center of the cop.

invented life-saving devices is the shoulder

The line is 144 yards long, and the charge

of powder used is two drachms. Upon the gun being fired at a high elevation the rod is projected upward and forward, carrying

the line trailing after it. The object is, of course, to land the line over the ship or

course, to land the line over the snip or other object, the rod dropping behind it. By this means a rope can be made fast to the tail end of the line by the succoring party, and be hauled on board by those in distress.

Only very careful readers of technical

An English electrical paper, in view of

POLITICAL MORALITY.

The Question of Whether a Politician Can be a Christian Answered by Noted Men and Women.

ALL AGREE HE OUGHT TO BE

And Many Think That He Can be, but i Isn't Very Likely He Will Always Succeed if He is.

NEW POINTS ON AN OLD SUBJECT.

Even on the Age of His Party.

PREPARED FOR THE DISPATCE.] The frequent charges of corruption in politics, born of each election, has so served to remove politics from religion, that, many have come to doubt whether a political career can be united to a Christian life; hence, the question has arisen, "Can a politician be a Christian?" Not long ago this question was submitted to a number of men prominent in American politics and in the church. To the inquiries thus sent, the following replies were received. Whether the question is answered in the subjoined contributions is left for the reader to decide.

Depends on the Definition. Ex-Attorney General A. H. Garland writes as follows:

politics and political obligations in their sermone and writings. We have had in our legislative halls, and now have, preachers of the gospel, skilled, apt, and dexterous politicians, and if they are not always "Christian states men," they may be called Christian politicians. It wenid be a withering, an appalling reflection, that, in a business in which so many are en-gaged, they have not the comfort and support of Christian teaching here, as well as its hopes in a future state, a belief in which, "if erad cated," in the language of the philosophic Buckle, "would drive most of us to despair," It may be a heavy demand, and, in fact, a severe strain on the nerves and faculties, for a politi-cian at times to be a Christian. Yet the diffician at times to be a christian. Let the dim-culty is one thing and the actual being is an-other; the difficulty is not insurmountable. Many people affect to believe there are no honest men in that time-honored profession, the law, and actually say but few of them get

henest men in that time-nonored profession, the law, and actually say but few of them get to heaven, and those few slip in sideways, as it were. Ridiculous!

By this same mode of talking, not reasoning, the word demagogue has been brought down from its once high and most lofty place and set in the company of base, tricky, artful, and all that. Often words run away thus, and doubtless much of this now alls the word politician. But it is too broad and too important a word, and concerns too much that is vital for it to drift away and become a synonym for meanness in political management or party chicanery. In this light, I could not discuss the question nor could you ask it. It cannot be admitted that the direction and coditrol of these affairs, in which every person in this country is so deep ly interested, and in which almost every one to some extent takes a part, are in the hands of outlaws, robbers and corsairs. Considering the words politician and Christian as defined by Webster, and as we practically know them, I do not think they are irreconcilable or even inconsistent, and the proposition submitted is answered in the affirmative. consistent, and the proposition submitted is answered in the affirmative.

Neal Dow deals with the ordinary acceptance of the meaning of the word poli-

A politician, Webster says, (1) is a man versed in the science of government, a person skilled in or devoted to politics: (2) a man of artifice or deep contrivance; (3) politic, cunning, artful. In common parlance, when the word politician is used it is never understood to apply to No. 1. We call such a man a statesvery few, while politicians Nos. 2 and 3 swarm everywhere; men incapable of living by honest industry, and so are driven to live by their wits, and politics seems to afford the largest field for such people. Henry Ward Beecher classed this sort of politicians with the devil: "The devil iticians," was his phrase, putting, as was and politicians," was his phrase, fit, the teacher and master first. It the teacher and master lirst.

I have known some politicians of the first class whom I have honored as upright and noble men, who could never, for any tempta-

noble men, who could never, for any temptation of party interest or any other, swerve one bair's breadth from the line of recutinde and honor. I have known a swarm of politicians of the class two and three, who would not steal, or lie, or cheat in private life, but in any matter touching narty advantage or party policy were thoroughly unscrappions. Some of these men bass in society as honest, many of them are church members in good standing: but in party matters they will without scruple lie, cheat, perjure themselves, bribe voters, miscomit veres, stiff ballot boxes, falsify voting lists, or do any other thing which they think advantageous to "the party." This is so common everywhere that the standing of such men in society or the church is not in the least affected by being faise to duty in any way and every way or to any extent, even to that of clothic county and not considered the chart.

The Ideal Politician. Roger A. Pryor writes as follows:

Not only may a politician be a Christian, but I believe he should be, Indeed, one cannot be and ideal politician without being a Christian -namely, in the sense that he applies the ernment, and the relations of citizen to the eriment, and the relations of citizen to the government. For example, the fundamental precept of the gospel, "Love thy neighbor as thyself," is as applicable and as operative in the relations of the government as of individuals, and should interdict all war. So the other precept, "Do unto others as you would that they should do unto you," should control the relations of governments. So the maxim, "Render unto Casar the things that are Casar's" governments. So the maxim, "Render unto Cassar the things that are Cassar's," obliges the citizen to the faithful discharge of his duty to the Government. These are mere illustrations of how the obligations and precepts of Christ in public affairs would purify and exalt politics; so that a true politician is indeed a true Caristian—in the sense we are now using the word. Hence, in my judgment, it is a prime function and duty of ciergymen to inculcate morality in all political relations, as well as in individual conduct. If by politician is meant, in the current sense of the term—namely—one who resorts to every sort of dishonest and nefarious art to climb into power, I answer that such a man cannot be a Christian.

Using Machinery for Good.

O. B. Frothingham says: Certainly, why cannot a politician be a Christian?—unless a politician is regarded as a mere coming leader or party manager, a man without patriotism, or public spirit, or moral sentiment, or social principle. Such a person can have none but an outside connection with some popular church for the sake of respectability—a sort of Pharisee, who goes through the form of worship in order that he may be some of mer. a sort of Pharise, who goes through the form of worship in order that he may be seen of men whom he wishes to deceive. But if by a politician we mean, as the term is coming more and more to mean, one who is practically interested in good government, and endeavors to promote it by using political machinery, no work seems to me to be more peculiarly that of an earnest Christian man. It requires the noblest Christian wittnes, courage, hopefulness, perseverance, self-devotion, sympathy, unpartisanship. Some of the best Christians I have known engaged in politics, and some who will not call themselves Christians are in a fair way of becoming such through their manly devotion to the political assues of the day. All are agreed as to what constitutes a real Christian. The term is about identical with the highest standard of manhood. Of course, there is no question here about doctrinal or ecclesiastical Christianity. Such differences are impertinent to this discussion, and if the higher manhood alone is considered, an engagement in political activity would seem to be imperative, for politics is simply humanity applied to the State.

Christians Must be Politicians. Oscar S. Strauss, the ex-Minister to Tur-

A politician can be a Christian, a Hebrew, Mo-hammedan, and an honest man. There are times in the history of all nations when a Christian not only can be a politician, but when every true Christian, Hebrew, agnostio, or whatever be his creed, must be a politician and a patriot. We witnessed such times in 1861 to 1866. I can conceive of every good Christian being in favor of civil service reform; it is more difficult to conceive them as opposed thereto and in favor of the spoils system. Religion, in its higher

sense, has to do with the relations of man to the State. In the time of Christ it was commanded not to confound these relations, but to render unto each what is due. The same command has, by the wisdom of statesmen and through the enlightenment of the people, been made practical in all constitutional governments by the separation of church and state. Shortly after the adoption of our Constitution, the Presbyterians of New Hampshire complained, in a letter to Washington, that religion, evidently meaning Christianity, had been omitted from the document; his answer was: "Because it belongs to the churches, and not to the State."

Christianity and Politics Consistent Chauncey M. Depew says:

Chauncey M. Depew says:

Can a politician be a Christian? I believe that he can. The question is equivalent to saying that the administration of government is hostile to the teachings and precepts of Christianity. Then the only people who could hold office would be atheists and Pagans. If you admit that the politician cannot be a Christian, you at once destroy the whole foundation of our Government; you would lose it the support of the churches and of the Christian people of the country, and, as they constitute the vast majority of the people, they would adopt some government where Christians could consistently manage affairs. I do not see what there is in a politician advocating the claims of the party in which he believes, and working for its success in promulgating the doctrines which he thinks essential to good government, in seeking office and in exercising public functions, which are not in the direct line of Christian injunction and duty. If that is not so, then you must pass all public affairs, which means the enactment of laws and their administration, and that means public order, safety, morality, protection for life and property, and wise measures which are for the benefit of the business of the country, into the hands golely of the saloons and the Chinese.

Practical and Impractical Politics.

Practical and Impractical Politics.

Bishop F. D. Huntington writes: Bishop F. D. Huttington writes:

We hear of practical politics. When will we learn that man's practice comes always and forever out of the faith that is in him, that what is strong and fruitful and presperous in his doing, be it handleraft or statecraft, must first be strong, and clear, and righteous in his will; that nothing "works well" which is not in agreement with the Master Workman of all man's work? A civilization made by material and even intellectual politics, without the balance of moral and spiritual support, when the winds blow and the floods rise, as they blew and rose around the Bastile when the National Guard joined hands with the mob, brain conspiring with passion, the walls will go to pieces and revolution begin. The most impractical politics that ever deluded a nation or beguiled its rulers was a political dexterity without politics that ever deluded a nation or begulled its rulers was a political dexterity without principle, without conscience, without fear of the Everlasting Justice, without obedience to the law of Christ. Who shall lead us into the strong city? Only He who "makes officers peace and exactors righteousness," who "teaches Senators wisdom" and Christian prophets fear-lessuess.

A Noted Woman's Opinion. Isabella Beecher Hooker writes:

Isabella Beecher Hooker writes:

If a "politician" means what is sometimes called the "ward politician," the man who trades in politics, and whose touch helps to corrupt them, the answer is easy—that such a man cannot be a Christian. His conduct is unworthy of a citizen of a free government, and the fewer we have of them the better for our country in every respect. But if by a politician is meant the man who feels a deep interest in politics, and carries into them a considerable share of his time and energies, then I say, not only that such a man may be a Christian, but that every Christian man ought to be, so far as he is able, just what this politician is. There can be no earthly subject more important than our politics, none to which every Christian citizen owes higher duties.

A Terrible Contrast. George H. Hepworth takes this view:

Ishould be very sorry to hurt the feelings of the politicians by replying in the negative, and I am unwilling to compromise Christianity by replying in the affirmative. Perhaps I had better say, yes, the politician can be a Christian; but if he undertakes both jobs he has a terrible contract on hand. My impression is that if he is very much of a politician with his right hand, and wants to be a good deal of a Christian with his left hand, he had better be mightly careful not to let that left hand know what the right hand finds it necessary to do. To acquire office, a man, in ninetynine and three-quarters cases out of a hundred, must donate money, which he knows will be used for the purchase of votes. Politics are made that way, and if he has conscientious acruples, his opponent, who probably got rid of his conscience long ago, will run ahead of him with a big majority. I have not seen enough Christianity in the politics of the day to run an infant class in Sunday school. But then I am near-sighted. George H. Hepworth takes this view:

throw him back upon a higher power. In the throw him back upon a higher power. In the zenith of a party's fame, perhaps; for the momentum of tendencies just referred to holds over for awhile; in the decadence of a party and humanly speaking, I should say, he cannot, for wealth, power and preferment become a ball and chain to every high and sacred aspiration, and when professional partisans see their day of doem approaching, a desperation seizes upon them, and God is the last being in their thoughts. But with Him all things are possible—even that a down grade politician may be arrested in his mad career and made a Christian of.

Blind, Yet He Sees. William Henry Milburn, the blind chap-

It were indeed, a sad case, if the men mos deeply concerned in the affairs which affect the weal of cities, States, and the nation were shut out from the mercy and grace of our bl Lord, and from membership in his body and church. Every public man has great and sore temptations, but so have all other men, what-ever their sphere of life. Our Lord's help is promised to all who seek it, and I nowhere read promised to all who seek it, and I nowhere read that Christ puts a politician under the ban; al-though from your propounding the query, it would seem some ignorant and narrow people do. I have known in the past, and still know, as devout and noble Christian men engaged in public business as in any other walk of life.

Politics a High Calling. Ex-Governor John Lee Carroll, of Mary-

land, says:

To my mind, a politician means a man who busies himself about the public affairs of the community in which he lives, and if he performs his duty properly, I would consider him a far higher type of Christian than one who makes a profession of religion, and yet who grumbles at the conduct of public affairs without doing anything to improve them. There can be no higher manbood than that of him who devotes his life to the efficient conduct of public affairs. The term is brought into discredit by those who abuse the power entrusted to them.

Room for More Christians. Cardinal Gibbons says:

As human affairs are constituted, there must needs be parties and politics. There being politics, there must needs be politicians. That in the true and larger and nobler sense of the words politics and politician, there is no hostility to the spirit of Christianity, but rather entire harmony with it; and that while there have been many noble Christians who were also great politicians, it is to be deplored that at present there seems to be so many politicians who are not Christians.

A Matter of Conscience Governor B. F. Briggs, of Delaware,

I cannot see why a politician should not embrace the Christian religion. Politics ought always to be a matter of conscience. True, a politician has much to contend with, but with a firm adherence to his religious principles, he will triumph over every obstacle, and his activity in politics will serve to show to the world by a consistent course that the most realous politician can be a living representation of a Christian gentleman.

Depends Upon Definitions. Major General Oliver Otis Howard, U.

S. A., savs: The question depends on two things: first, the definition of Christian, and, second, the definition of a politician. Supposing you mean by a Christian a consistent believer in and follower of our Lord, and by a politician one who devotes his life conscientiously to the solution.

What Should Be. Dr. James McCosh writes: Every politician should be a Christian, and he will thereby be a better politician, as actu-ated by moral principle, and every Christian should be a politician, watching over the moral welfare of the country, and saving us from abounding evils.

The Good Politician Theodore Roosevelt says:

Of course a politician can be a Christian; he will never do really creditable work in politice nniess he applies the rules of morality and Christianity as rigidly in public as in private

Senator John J. Ingalls writes; Can a politician be a Christian?

THE NEW CAR BRAKE

Pressure on the Rear of a Train Almost as Soon as in Front.

PROBLEM OF ARTIFICIAL RAIN. A Smoking Pipe That Gets Rid of

Deleterious Products. SIMPLE METHOD OF ETCHING GLASS

IPREPARED FOR THE DISPATCH. 1 The new quick-acting brake, which is attracting the attention of the chief railway managers of the world, possesses, eminently, the advantages of increased quickness of action, east of gradation and smoothness of operation, and it can, moreover, be applied to trains of any length that are likely to be worked. The ordinary Westinghouse brake is put in motion by reducing the pressure in the train pipe by allowing a part of the air to escape at the driver's valve. This reduc-tion of pressure, if effected rapidly, is propagated gradually along the pipe, and takes an appreciable time to reach the rear exan appreciable time to reach the rear ex-tremity. It follows that if a train be very long the brakes on the front part are applied before those at the rear, with the result that excessive and often dangerous jerkings of the vehicles is occasioned, the buffer springs being strongly compressed and then violent-ly extended. With a long train this form of brake cannot be used unless the air is evacuated as eleven that the pressure in the evacuated so slowly that the pressure in the air-pipe has ample time to equalize itself, so that the brakes go on simultaneously. In the new arrangement the bulk of the air in the pipe is no longer discharged at the driver's valve. The action is com-mended there, but the first brake mechanism which comes into operation places the train pipe in communication with its own brake cylinder, affording an outlet for a portion of the air. The second, third, fourth and successive brake mechanisms evacuate more

Timber Supply and Railroads.

air in turn, the result being that the reduc-

tion in pressure is greatly expedited, and the wave runs the length of 50 carriages in

two and one-half seconds. This time is too short to give rise to dangerous oscilation, and an emergency stop in a train of this length can be made with safety and com-fort.

The question of the consumption of timber by the railroads has been for some time under investigation by the Forestry Division of the Department of Agriculture. Circulars have been sent out to all the imporculars have been sent out to all the impor-tant railways for information on points con-nected with the subject, and from the re-plies to these it is found that the round total of timber ties in use in the United States is nearly 516,000,000, and 80,000,000 are annually required for renewals. In-cluding bridge and trestle work the annual consumption of timber on railways is computed at 500,000,000 cubic feet, requiring the cutting of the best timber requiring the cutting of the best timber from over 1,000,000 acres of forest land per annum. To meet the demand, under our present wasteful management of timber land, the area to be preserved for this purpose would probably exceed 50,000,000, or more than 10 per cent of our present forest area.

As railway managers prefer "hewn" ties and "one to be cut from small trees," the timber consumed by railroads, or 20 per cent of the total consumption, is taken from the young growth. Then, 60 per cent of all ties are oak, the most valuable of all our timber. Beliable investigation shows that in the Kentucky forests, when 40 per cent of the natural growth is white oak, the new growth of oak is only & per cent after the land has once been cut over for ties. The consumption of pine from the forests of Wisconsin and Michigan is also enormous. While Canada is being Depends on the Party's Age.

Frances E. Willard says:
In the early history of a party, I believe a politician can be a Christian, tor he has contradiction, curses, and contumely enough to throw him back upon a higher power. In the speculators and the efforts of the herdsmen

secure pasturage for flocks. Laying Underground Wires.

A useful method of laying underground wires has recently been adopted. The wires are run into tubes of paper, treated with special asphaltic compound to insulate them. The tubes are then placed in a trench and filled with the insulating compound. During a late discussion on the question of overhead and underground wires, E. H. Johnson drew attention to the fact that the gradual development of the overhead electric system has become such that in many of the larger cities the necessity of placing the conductor underground is imperative. In a city where 50 to 100 cars are operated at least 95 per cent of the wire on the poles overhead can be placed underground to advantage. There is really no necessity for their being overhead. The only thing that need be there is the trolley wire, and the feeder wires, special mains, etc. may be placed undergial mains, etc. may be placed undergial mains, etc. that in many of the larger cities the neces cial mains, etc., may be placed under-ground. The question to be considered is:
"Can the wires be placed underground with less investment, and can the insulation of the wires be maintained underground with less charge for repairs?" Mr. Johnson urged that this could be done, and advo-cated the adoption of an efficient system of carrying it out.

Making Aluminum.

There is probably no other metal the use fulness of which is so extensive as aluminum, and yet its practical utility has been successfully demonstrated only very recently. As a matter of fact, the metal was known long ago, but, although its advantages have been realized, the great cost of its production has always prevented its coming into general use. Electricity has, however, come to the rescue in this, as in so many other departments of industry, and by its agency aluminum is now produced at such a low cost that it bids fair to super ede iron and steel in many instances Aluminum exists in nature in the form o an exide so refractory in its character as to make reduction in any ordinary furnac impossible, and the only means which have been found available for its reduction on a commercial scale is electrolysis. The pas-sage of the electric current has the effect of separating the pure metal from its sur-rounding impurities, and the economy of the process, compared with the methods heretofore employed, is remarkable.

The Therapeutic Smoking Pipe.

An improved form of smoking pipe has been introduced, in England, to the notice of the medical profession, primarily to pro-vide a means of combating the smoker's habit, and to do away with the injurious elements in it, to which its baneful effects are due, by abstracting the noxious con-stituents of tobacco smoke, while leaving the aromatic principles unaffected. It is hoped by this means to make it available for daily use by delicate or invalid smokers, to whom total prohibition would often be little short of punishment. Secondly, it is suggested that the pipe may be made useful as a means of utilizing the habit of smoking as an ad-junct to treatment by inhalation of volatile medicaments, so that the vapor of the remedy employed may be directed to the affected surfaces. Another possible use of the pipe is that of an insufflator, for which its con-struction specially fits it.

Bourne of the Emigrant.

WOMEN AND TARIFF.

the whole population, have left the country in the last year. The emigrants are said to be chiefly from the Northern and Eastern districts, where labor is carried on only under great difficulties, besides which recent harvests have been very bad and have entailed much suffering. Kinley Law Will Help Them.

PRICES ARE THE FIRST TO RISE

a Matter of Faith.

fall upon the earth. Man has accomplished as difficult things as that in the realms of science. It is not contemplated to produce growth of forest in the arid regions. The success of that method is still disputed. It is proposed to find out whether rainfall cannot be produced by electricity, dynamite explosions, or other mechanical agencies. Taking the cue from the fact that heavy cannonading on a battlefield, or on a Fourth of July celebration, is followed by copious rains, the experimenters will work accordingly. The process of burning powder to produce rain has hitherto been too expensive to warrant its general use, but possibly (WRITTEN FOR THE DISPATOR.)

In addition to this imposing array of learning there were lessons in manners and deportment, and all that is considered "good form" in society. Coming from a famous institution of learning such as this, where thousands of dollars had been spent to make her a cultured and intelligent woman, and capable of filling, as supposed, the highest social position to which she could be called, it the large number of central stations which are now being erected, wishes to impress upon station designers the necessity of organizing proper smoke annihilating arrangements in connection with their stations. It shows, that in addition to the device so well known, of washing the issuing smoke into a dirty froth by the impact of dashing water, a German blast furnace maker has now discovered a method by which the smoke and soot are deposited by water spray in a chamber. From the resultant froth the ammonia and sulphur can be condensed was not a little surprising to hear this hand-some young woman say to an intimate friend, "What is this blamed tariff they are

WHAT EDUCATION AMOUNTS TO. These elegant remarks from one who had graduated in Belles-lettres, art and science —including Political Economy—showed what a wast deal of money can be spent to little purpose upon the education of girls, and revealed how small is the smattering that most of them receive in such knowledge as pertains to their everyday life. But since this society girl did not in her study of political economy learn anything of the tariff at school, it is quite likely she will have some practical knowledge of it drummed into her pretty head at home here-after. Her income is a fixed one—it does not go up with a sliding scale as prices advance, and her lesson of economy will have to be learned, unless she happens to marry a man whose pockets will stand the

to "pick her man" accordingly.
This shows the importance of being wellgrounded in the matter of political economy A knowledge of the advantages and disad

MUST WATCH THE WAGES.

of treatment reduced. A special etching solution is prepared, and a small quantity is dropped upon a sheet of India rubber covered with a cloth pad, which is rubbed until almost dry; whereupon, by means of an india-rubber stamp bearing the design to be reproduced, a portion of the liquid previously absorbed by the pad is transferred to the surface to be etched, with the result that the design is esten out. Should a deposit the formed in the gutta-precise hottle which for some time, such deposit may be dissolved by hydrofluoric acid. will be sumptuously attired in purple and fine linen every day. There will be less chance now for lace curtains, handsome carpets, and the elegancies of life. More will have to be paid for velvets, silks, laces, line-throwing gun, invented by Captain D'Arcy-Irving, of the English royal navy. The invention consists of a shoulder gun, having the cop or coil of line, suspended in a case, carried under the breech of the gun. A rod is inserted in the barrel, the fore end of the rod being connected with the end of the line which is in the latest the line which is in the line.

will have to be paid for velvets, silks, laces, handkerchiefs, gloves, and even corsets and buttons.

It is true, as Jay Gould wisely says from a millionaire standpoint, that if the tariff raises the price of clothes, a man can "get raises the price of clothes, a man can "get raises the price of clothes, a man can "get raises the price of clothes, a man can "get raises the price of clothes, a man can get raises the price of clothes, a man can get raises the price of clothes, a man can get raise when the permanent of the city of stead of two, as heretotore. The same advice will serve good for a woman. If the tariff raises the prices of what she wears she can keep "square" by wearing her summer duds all winter, or her winter "things" all summer. Or if that does not suit her fancy, the same way realist instead of sills or all. she can wear calico, instead of silk or al-paca, cotton velvet instead of silk or plush; use bone buttons instead of pearl, cotton bandkerchiefs instead of linen, imitations and shams instead of the real and good quality of anything.

THE EFFECT ON WAGES. This philosophy of Jay Gould may not be

literature can realize the advances already made in the manufacture of pressed steel in acceptable to everybody, but it is evidently this country. Some of the most complicated forms are now made here more successfully than in Europe. One of the latest achieve-ments in this line is a steel bottle for a cream eparator. This bottle is 9-16 of an inch thick, uniform throughout, weighs 80 pounds, and has only one opening, that at the top. It is made from a plain flat sheet by several operations, and finally molded to the desired shape. This construction has been a boon to dairymen, as former bottles made of castings of steel and mallable iron were very unsafe when revolving at 7,000 revolutions a minute. The only other place where these bottles are manufactured is Sweden, and the expense there is so great as also to prohibit their use. Effects of Smoking on the Voice.

Sir Morell McKenzie is authority for the statement that most of the leading actors suffer from a relaxed condition of the upper throat, brought on, he believes, entirely by smoking; but actresses are rarely affected in that way. He has noticed the same thing in public speakers and clergymen. He says that for a delicate throat the usual smokeladen atmosphere of a common railway smoking car is even worse than the actual use of tobacco. The oriental hookah is, in Dr. Mackenzie's opinion, the most harmful apparatus, as the smoke, passing through

water, is cooled before entering the system

He stigmatizes the cigarette as the most harmful form in which tobacco can be used.

Advantages of Vegetable Diet. Popular Science Monthly alludes to the belief of some that as man in the savage

state has, for the most part, been largely, if uot wholly, carnivorous, he will, with the progress of civilization, become entirely vegetarian or use only the products of animals, as eggs and milk, with vegetable food. A vegetable diet has been found very successful in treating kidney troubles and indigestion. In point of economy it, is an enormous saving, not only in actual cost to enormous saving, not only in actual cost to the consumer, but also in land; as of two equal portions of ground, one raising a cereal and the other beef or mutton, the part de-voted to the cereal will support 10 times as many men as the beef or mutton portion.

The Method of Packing Salt. The Dutch Indian Government is offering

prize of 10,000 guilders for a suitable aethod of packing salt. The native brine is evaporated from the salt pans by the heat of the sun, and is allowed to remain a long time in the storehouses in order to get rid of its hygroscopic qualities. In spite of this there still remains a disposition to take up water. What the Government wants is a suitable packing material, which will prevent the salt taking up moisture and liquefying. The prize will be given for the best essay which describes—first, a machine to dry the salt; second, the material to be used as packing; third, the machine to manufacture strong boxes or barrels; fourth, the machine to fill the boxes of one kilogram. water. What the Government wants is a

The Ladies Don't See How the Mc-

Important investigations are now being made by the Department of Agriculture on the subject of the artificial production of And That Salaries Will Follow is Just Now rainfall. With regard to this subject, Colonel Casper, of the Signal Service, says:
"No doubt there is plenty of moisture in the atmosphere at all times, if it could only be gathered in the right place and be made to fall upon the earth. Man has accomplished as difficult thing as that in the realms of

BESSIE BRAMBLE WILL WAIT TO SEE

Not long ago a young lady was graduated the country. In that school she was supposed to have acquired all the necessary knowledge of Latin, German, French, mental philosophy, political economy, American literature, constitutional jurisprudence, geology, English history, American history, analogy, moral science, New Testament history, mathematics, elecution, composition, rhetoric, chemistry, music, with, of course the fundamental common things of reading, writing, arithmetic and geography and

all talking about anyhow? They all make an excuse at 'the shops' for raising the price of everything until positively I know I shall be 'busted' long before my next al-lowance is due."

strain. If she knew what the tariff meant, she might be able

vantages of free trade and protection would be of value to them in the momentous mat-

Until all wages and salaries are so adjusted as to rise with a steep tariff, which raises the prices of almost everything a woman wears save calico, it is evidently to her advantage to find a husband whose fortune is increased by the tariff for protection. If, under the McKinley bill, she now marries a man whose wages do not go up to meet the prices, she will be further away from a seatskin sacque, a silk gown, a plush wrap or a handsome cloak this winter than ever. There will be less hope that she will be sumptuously attired in purple and

the lesson of the hour to those who have to make both ends meet on fixed incomes, and to those whose wages will not rise in measure with the increase of prices. American workingmen get high wages as compared with the toilers in other parts of the world, but when these are shaved down by raised but when these are shaved down by raised prices it is evident that some further doctoring of statesmen is needed to secure the apparent and ultimate advantage. The tariff secures bigh wages say Brother Blaine, Speaker Reed, Congressman McKinley and other top-notch statesmen, but if the tariff raises prices, and statesmen, but if the tariff raises prices, and invites the competition of hundreds and thousands of Huns, Italians and the low-down labor of Continental Europe-to say nothing of foreign plants of manufactures coming here, where they can compete with this country without the bar of the tariff how are wages to be kept up, let alone to

rise on a sliding scale with prices?

If women in the mass—and even those who have been graduated in political economy—know little of the tariff and its working, it may be said that they are matched by the most of men. It would seem that common sense would tell them both that a blanket could not be made longer by cutting a piece off the top and sewing it on to the bottom. Men who have brains use them to little purpose when they

WHICH ENRICHES ONE CLASS at the expense of all others is a violation of the law of equity. They use them to little avail when they do not see that a system which imposes a tariff that raises prices for home people and admits cheap labor free to enter into competition with their wages is a bogus sort of protection. It is admitted by most that the tariff will not raise wages. They are regulated by the law of supply and demand.

What seems strange is that workingmen do not appear to see that what really lessen their wages is an increase in the price of food and clothes. If they get \$5 a week more than a foreign worker they fondly imagine they are a deal better off than he is, but if they by a system of trade restriction raise the price of food and clothes to the same figure, they are not a whit better off in

reality.

A man who has studied up our new tariff bill and has given his mind to its figures says that from the "first to the last line it discriminates against the poor man." He uses the "figgers" to show that on articles used by mechanics, farmers and working women the increase of duty is larger than that on the goods used by the rich by from 20 to 30 per cent. Doubtless, he sarcastically adds, the working people will be glad to pay this advance, so that the millionaires can make more millions. They will be can make more millions. They will be quite willing to "chip in" this extra so that philanthropists can establish libraries for the benefit of foreign towns. (This seems to be a slap at "our Andy.")

BETTER FIND OUT. Whether his estimates and figures are cor-

Bourne of the Emigrant.

The degree to which America offers prominent advantages to the emigrant is just now shown strikingly by the existing conditions in Iceland. It is said that that country is gradually becoming depopulated, owing to the constant emigration of its people to the shores of Canada and the United States. These emigrants send back such favorable accounts of their new home that others quickly follow. It is estimated there in the long and a number of the teeth evidently need filling. It is possible they would prefer not having the "lat fried out of them" in order to make rich men richer. That wages are to make rich machine to fill the boxes of one kilogram.

It is about 2 inches long and a number of the teeth evidently need filling. It came from the Figi Islands and was found there in 1840.

An enthusiastic numismatist has devised an ingenious method of exhibiting coins, of course, "get even" by Jay Gould's plan, of course, "get even" by Jay Gould'

compete with home workers, is it likely there will be enough of peace and prosperity to go round? Those who are chiefly concerned know, or ought to know.

That tariff and free trade constitute a great problem is plainly set forth by the fact that famous statesmen of England and United States—Gladstone and Blaine—are diametrically opposed in their opinions. Great minds, they say, run in the same direction, but these two run right plump against each other. Gladstone asserts that "all protection is morally and economically bad." Blaine thinks the golden rule does not apply across the Atlantic. It matters not to him if the "furrin brethren" over the sea starve as long as by "protection" their sea starve as long as by "protection" their factories can be shut up, and their fires of industry be put out. Some of his followers

gloat over such prospect.

On this subject, Mr. Blaine says: "The benefit of protection goes first and last to the men who earn their bread in the sweat of their faces." This may be true. The majority of men think so and vote so. But he would have trouble in making the "impecunious class" think it true. Women now have to stretch a dollar to its uttermost limit to get along. The sewing girl who works for \$6 a week and finds that everything she for \$6 a week and finds that everything she wears has gone up in price thinks the new law an iniquity. The teachers whose salaries are never too fat, but who know something of the merits and demerits of the taciff, have a conflict of mind over the pulling and hauling of theory and practice.

Even women of wealth are growling over the rise in prices. "Why," said one, "it is not only drygoods that have gone up, but French peas—they can't make French peas in this country—and mushrooms, and things like that have been raised in price, too."

AWAIT THE RESULTS. What a far-reaching question this problem of the tariff is! How far as the poles asunder are men of equal honesty, equal patriotder are men of equal honesty, equal patriot-ism, and equal desire, as they say, for the fair thing. Has the moral law no place in commerce? Is a government instituted for the benefit of the people justifiable in establishing what Herbert Spencer calls a system of robbery? One single firm only, it is said, makes plush in the United States. Is it wonderful that women growl when

Is it wonderful that women growl when every one of them who buys a plush wrap this winter will be charged a dollar or two extra for the benefit of that firm?

However, the proof of the pudding is in the eating. Let us all pay our taxes under the McKinley bill, and see how it goes. It may as well be done cheerfully as not since we have no option, unless we adopt Jay Gould's philosophy. But since there is so much difference of opinion on this subject, would it not be well to open up evening classes and schools of discussion for the study of political economy with regard to protection and free trade—to study both sides and get the plain right and wrong of sides and get the plain right and wrong of the matter into the public mind? BESSIE BRAMBLE.

THE ADIRONDACK FORESTS.

Their Permanent Maintenance Necessary to the City of New York.

November Century.] The State of New York has nearly a million acres of mountain forest lands, not in one compact body, but in scattered tracts separated by private holdings. In this situation the property of the State cannot be adequately protected from spollation, nor properly administered as a source of revenue. Those who have given attention to the matter in this State therefore favor disposing of outlying tracts, by sale of exchange, and the acquisition by the State of sufficient additional territory to constitute a large State park, or forest reservation, around the sources of the Hudson river and the other great waterways of the State. This plan was presented in a message from the Gover-nor to the Senate during the last session of the Legislature, and by the concurrent action of both branches of that body was committed to the present Forest Commis-sion for thorough investigation, the finding to be reported to the Legislature at its next

nent maintenance of forest conditions around the sources of the Hudson river, and the interests of large portions of the interior of the State are also closely coninterior of the State are also closely con-nected with the destiny of the North Woods. No part of the Adriendack Mountain forest region is adapted to cultivation. It is naturally suited to the perpetual production of timber, and to this crop alone.

The five or six millions of people who will

oon be dwellers in the great city which is so rapidly growing up on and around Man-hattan Island will need the whole Adiron-dack wilderness for an outlying park and forest playground for their summer rest and recreation, The movement to preserve these mountain forests, and to make the region a public possession, should have the cordial support of all civilized anglers and huntsmen, of lumbermen and owners of timber lands, and of publicpirited citizens in general. At present large portions of the region are being rapidly and irretrievably ruined.

OUR ONLY TORPEDO BOAT. omething About the Cushing, of the United

European countries have built large numbers of these boats. Italy has now about 200; England, 175; France, 150; Russia, 130; Germany, 100, and Spain, 20. On this side of the Atlantic the Argentine Republic has 18; Brazil, 15, and Chili, 10.

Of course you wish to know how many our own nation has. Well, we have one. It was recently launched, and if you read It was recently inducted, and if you read the papers you will no doubt see accounts of its trials for speed. It is a big one—a "deep-sea" boat—very much like the Italian Nibbio in appearance, but not in any way designed after that boat. It was built by the Messrs. Herreshoff, at Bristol, R. I. This firm has built some very fast launches and yachts, and can no doubt prove equal to the best foreign builders in constructing torpedo boats should others be demanded. Our torpedo boat is named the Cushing, after a famous naval officer who during the Rebellion sank a Confederate ironclad with a torpedo rigged out on a spar projecting from a steam launch. Torpedo boats are not always named. It is the custom of foreign countries to give names only to their "deep-sea" torpedo boats. The smaller ones

are simply numbered. I know you are wondering why we have only one torpedo boat and would like to ask me if we don't need more. Perhaps we do. The United States has a longer sea coasi and more important sea ports to protect than any other country; but the United States is deliberate and thoughtful. The present Secretary of the Navy has asked Congress to appropriate money for five torpedo boats in addition to the Cushing, and no doubt successful trials of these will bring about many more.

SAVAGE NECKLACES. ome of the Curiosities That Uncle Sam Has

in His Possession. INHITTEN FOR THE DISPATCH. Uncle Sam has a vast collection of the

ewels of savages. He has silverware made by the Indians of Arizons, carved ornsby the Indians of Arizons, carved ornaments from Alaska, and great bracelets and anklets of gold, silver and brass from India. One of the most curious necklaces in his collection is one of human fingers which the medicine men of some of the Indian tribes wear, and one is made of 67 human teeth with holes pierced at their roots to string them. This necklace is ten inches long and a number of the teeth evidently need filling. It came from the Figi Islands and was found there in 1840.

NEW ADVERTISEMENTS.

THE LEADING AND LARGEST MILLINERY HOUSE

IN WESTERN PENNSYLVANIA.



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In order to make room for our immense stock of Holiday Goods now arriving daily. Cutting and slashing prices all over our big store.

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Jackets at \$10, \$12, \$15, \$17 to \$55,

Wraps at \$12, \$15, \$18, \$20 to \$45, Sacques at \$15, \$18, \$25, \$30 to \$50.

All warranted Genuine London Dyed Seal Plushes, blocked seams, full tailor made, with heavy quilted satin lining, chamois skin pockets and real seal ornaments. We stand ready to replace any garment we sell by a new one, in case it does not wear as represented.

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CHEVIOT JACKET-24 inches long, high shoulders, in either blue or black-\$2 74.

DIAGONAL JACKET-25 inches long, tight fitting, high shoulders, open seams, stitched edges, \$2 99. Worth

CHEVRON REEFERS-27 inches long, roll collar, hussar ornaments, perfect fitting, regular tailor made, in either blue or black, \$7 24. FUR COLLAR JACKETS-27 inches long, in

colors, with shawl or notched rolling collar, and trimmed with Astrachan, Wool, Seal, etc., etc., \$11 49, \$12 50 to \$25. CHILDREN'S REEFERS-Age 4 to 12 years, in a

either Beaver, Worsted or Chevrons, in black, navy or tan

very neat Striped Worsted material, high shoulders, brass buttons, rolling collar, at only \$1 87. MISSES' REEFERS-Age 12 to 18 years, in Black or Blue Cheviot, rolling collar, open seams, raised shoulders,

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Isn't it a treat to get into a Millinery Department where there are no dead places, no warmed-over styles? We have no corners for drift or trash. Every table is loaded with live, wideawake shapes, the same as shown in Paris or New York, both trimmed and untrimmed. (We make no charge for trimming when you buy your materials here.)

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\$2 99-For a good Porcelain Tea Set, 56 pieces. You can have your pick, blue or brown. All perfect, and worth twice our price, \$2 99.

5c-2 boxes for 5c of Wood Toothpicks, 2,500 in each

10c-An elegant line of Rose Jars, cut to one-half their value-10c. 16c-A good Nickel-Plated Cuspidor. To reduce the

stock, we cut them to 16c each. \$7 63-For a good Porcelain Dinner Set of 112 pieces, in 3 pretty colors. We guarantee these sets to give good

satisfaction. Remember, \$7 43 for 113 pieces. 50c-For 10 rolls or packages of best Toilet Paper.

\$3 98-For a 12-piece Chamber Set of best Porcelain, pretty colors, and warranted to give satisfaction. These sets

are worth double the money. 2c-Box of Putz Pomade, the celebrated cleaning com-

\$2 49—Bissel's Grand Rapids Carpet Sweeper. Sells all over for \$3 50, We guarantee ALL SWEEPERS to give satisfaction. Our price, \$2 49 each.

SPECIAL:

Our Fashion Catalogue for 1890-91 now ready, and mailed to any address free of charge.