THE CAUSE OF WOMAN.

WHY WOMAN SUFFRAGE MUST COME FROM A "GREAT PARTY."

No Third Party Has Ever Accomplished Anything Permanent—Are Not Changes Within the Two Parties Likely to Bring Emancipation for Women? Foreshadowings of What Is to Come —Women Against "Sunday Opening."

It is reasonable to suppose that there always will be in this country two dominant political parties, each struggling at every election to wrest control of the government from the other. There will be also several smaller parties composed of honest reformers along various lines, the disgruntled from the old organizations and the restless, floating element that merely wants a change. The shores of the last century are strewn with the wrecks of third parties, but new ones are constantly being launched. They have their value as an outlet for extreme radicalism and as a medium for advocating progressive ideas which, in a modified form, are sometimes adopted by the older parties. But except by fusing with one of the latter, which is invariably done at a sacrifice of principles, a third party never secures possession of the executive or legislative branches of the government. For this reason, as has been frequently pointed out, those who are working for the enfranchisement of women cannot hope to obtain it through a third party, although almost every one for the past twenty years has made it a plank in its platform. This has been done partly for the sake of principle and partly through the desire for help from every source. Women are appreciative and grateful, but they fully understand that the suffrage must come through one or the other of the two great parties.

It becomes an interesting question, then, which of the two it shall be, for that it will be granted ultimately nobody doubts. Women of Republican proclivities point with pride to the fact that in every Legislature which has passed a suffrage bill it has been done by Republican votes. Women of Democratic tendencies retaliate by showing that on every occasion when a suffrage amendment has been defeated, the Republicans have carried the election, which is indisputably true. Only one Democratic State Convention ever adopted a woman suffrage plank—that of Idaho, in 1896. Republicans often adopt one—and then vote against it. No national convention of either party has declared for the measure. It seems to be favored and opposed by just about the same proportion of Republican and Democratic newspapers. Up to this time it may be safely affirmed that it is a strictly non-partisan question.

Now is it a chimerical belief that the wonderful changes which are taking place in the two old organizations will finally result in their division on entirely different lines from those which have heretofore distinguished them and that one of the parties resulting from this new adjustment will enfranchise women? The practical advocate of woman suffrage always has held that it never would be granted simply on the ground of its innate justice, but only because it would be to the advantage of some political party. So long as the great battles were fought on the material issues of tariff and currency there was no especial necessity for the influence of women. While men were competent to grapple with them alone neither party was able to do so in its original composition, but there was such a shifting about that when the smoke of the conflict had cleared away, the old lines were found to be almost obliterated. These questions doubtless are settled for a number of years but there never again will be the same hard and fast division of parties. Is there not reason to believe that in the future there will be gathered into one party the sober, conservative, sagacious, law-respecting, educated and industrious elements; and into the other the intemperate, radical, visionary, lawless, ignorant and idle? And when this time comes will not the former, if they are to preserve their supremacy, be compelled to call women to their assistance?

This division of parties is already clearly foreshadowed in the great cities. In New York it already has taken place, and in municipal politics it is not likely that the two parties ever will be resolved again into their original elements. It is only in a similar alignment that Philadelphia can find salvation or that there is any hope for Chicago. Whenever the moral element is arrayed against the immoral it is then that the men who represent the former begin to realize their weakness, but it is only now, for the first time, that they are turning to women of support. Even now it is done in a desultory sort of way with but little conception of the immense power they would prove to be if organized and equipped with the franchise. But how and when can this be impressed upon men with sufficient force to stir them to action? It was believed by many that the work of women in the New York city campaign was the most advanced step toward securing the franchise which ever had been made but, a short time after election, District Attorney-elect Jerome said in an interview:

Ways in which women can help to promote good government will continue to suggest themselves as they have just done. As to the suffrage: While to confer it would be theoretically just, and while its final coming is inevitable, I really don't see what we can do about it now. I know of no argument against it; indeed personally favor it. Yet I feel that its evolution as a political policy is not yet complete, and that we may none of us see the day when it shall be.

What really would have hastened the day for woman suffrage far more than the victory of the fusion ticket would have been its defeat. Then, perhaps, the men would have been able to "see what they could do about it." In the flush of success they do not feel any particular need of doing anything. No party can remain in power, however, without a stable constituency behind it. A few years from now, when all this great fight is to be made again, when the forces have disintegrated and the memory of the Tammany regime grown dim, the leaders of this [illegible] reform movement may wish they had taken advantage of their supreme influence to create such a constituency of women. When they are in power is the time to do it. Neither in municipal nor national government can the party of progress and morality remain permanently in control if it must depend wholly upon the support of men, and when it has learned this by experience it will call to its assistance the woman element which exemplifies progress in the highest degree and conserves the morality of the nation.

All women are not temperate and moral [illegible]

[illegible]

politicians to "reckon with;" and they would be reenforced by a host many times as large who are opposed to Sunday saloons on principle and not because the men of their own family patronize them.

The representatives of what is called the up-State districts of New York are engaged in continual warfare against those who represent New York City and are determined to have the laws kept lax enough for that conglomerate population. The former have the remedy entirely in their own hands. They can enfranchise women whenever they choose to do so. The majority of women from up-State would vote very much as the men from those sections do, and they would be increased by a sufficent number from the great city to wipe out completely that dangerous balance of power which tends to keep the legislation of the Empire State on a very low plane instead of making it an example for the nation.

There has not been anything so humorous as Mr. Jerome's Rochester speech since the anti-suffrage ladies issued their last manifesto. His constant appeals to God, his pleadings that the saloons shall be opened on Sunday to save the policemen from being debauched, his arraignment of the whole country for degrading the liquor business, and his closing appeal that "great public needs shall not be considered from the standpoint only of political exigencies," when he had just given political exigency as the principal reason for changing the excise law, form a combination that should cause Mark Twain to hand over his laurel wreath.

The climax is reached in this declaration: "God knows, with the experience I have had, that if it were possible to close the saloons for all time I would vote aye, but it is as Dr. Parkhurst said, 'A bill for Sunday opening during limited hours is not a bill for Sunday opening—it is a bill for Sunday closing'"

Does not this recall that touching statement in the anti-suffragists' report, "As the months have slipped by we have come to feel that in neither house was the bill giving suffrage to tax-paying women in any sense a suffrage measure?"

"Those laughable ladies," the New York *News* calls them, and surely it can add, "Those laughable men."

The Massachusetts Legislature, after extended travail lasting through many sessions, has at last brought forth an act which has been passed upon by the Great and General Court in special session and will become a law Jan. 1st. It allows husband and wife to inherit property in the same manner, and in a burst of liberality it changes the provision that "a widow may remain in her husband's house forty days after his death," and extends the time to six months.

At its last meeting the Massachusetts Suffrage Association adopted these slightly sarcastic resolutions:

Resolved, that we rejoice in the action of the Legislature in equalizing the law of inheritance between husband and wife in the new code, and,

Whereas, Massachusetts women have been asking for this obviously just measure for 54 years,

Resolved, that indirect influence without the ballot is a slow and laborious way to bring about reforms.

This suggests an editorial which appeared recently signed by Ella Wheeler Wilcox and entitled "Tirade against Man." It was in reply to one of those letters which editors receive when they have an answer all ready, the writer protesting against the injustice of the property laws to women. Mrs. Wilcox proceeds with great triumph to quote a long digest of laws from Bliss's Encyclopædia showing that in many States women have full control of property and power to dispose of it at will. She draws the conclusion that "the woman who can write such an abusive letter toward men as a class is devoid of all the softer and tenderer impulses which rule mankind more than any law put upon the statute books."

It is a little difficult to see how a woman can rule a man by an "impulse," and it does seem as if a soft, tender impulse running up against a cold, hard statute would get the worst of it. But the point is simply this, that all the laws quoted by the editorial refer simply to the wife's own separate property which she had at marriage or acquired by bequest, etc. About three-fourths of the States now permit her to retain possession of this and dispose of it by will in the same manner as the husband disposes of his. The writer entirely loses sight of the fact that in every State the property accumulated by the two after marriage is in the absolute control of the husband, and if the wife die first she cannot dispose of a dollar.

But there is no disadvantage in a little thing like this, for, as Mrs. Wilcox says, "The woman who knows how to manage a man has no occasion to feel that he regards her as an inferior, being but only as a different being—and he thanks God for the difference."

Well, he ought to when the difference enables him to own the entire proceeds of the partnership. And when we learn a little farther on that "men are what women make men," we really feel that we should be a little more lenient with the poor, helpless things.

A Kansas paper says: "The suffrage club recently formed in Topeka was to be limited to fifty members, but the clamor to get in is so great that it is about decided to increase the membership to five hundred. It is composed of the very best class of women prominent in club and social life."

This does not look a bit as if the interest is dying out in Kansas, but it does look as if the next Legislature might know what to expect.

The Pennsylvania Woman Suffrage Association rejects with scorn the report that it proposes to take a hand in purifying the politics of Philadelphia. Some of the respectable men who have reached the stage where they grasp at straws are making pathetic appeals to them, but they answer that a force of clerks can be hired to peddle the tracts and address the postal cards.

The Homemakers' League has just been organized in Chicago, from which suffrage and all strong-minded topics will be barred and the members will make a specialty of "child study, artistic home decoration and wife and mother culture." Its founders felt that women were giving up entirely too much time to club life and to counteract this tendency they started another club.

IDA HUSTED HARPER.

California's Anti-Suffrage Vote.

TO THE EDITOR OF THE SUN—*Sir*: This statement was made in the "suffrage column" last Sunday:

[illegible]

From the enclosed carbon copy of the circular sent out by the Anti-Suffrage Association you will see that the figures were not [illegible]

DEC. 19. ELEANOR PHILLIPS, Secretary.

Hindu Sward Marriages.

[illegible]

POEMS WORTH READING.

Clear the Road!

In boyhood days we used to go,
When winter winds blew chill,
With ruddy cheeks and nimble feet,
To coast down Martin's Hill.
And from each speeding single sled
Or double-runner's load,
The frosty air was rent in twain
With shouting "Clear the road!"

Like arrows from a bow of steel,
Teeth set and eyes aglow,
We sped the length of Martin's Hill
Across the glist'ning snow.
There was no halting on the way,
No one steered out or "slowed;"
We sped like mad down Martin's Hill,
And shouted "Clear the road!"

Then one by one we put away
The much-beloved sled,
And journeyed forth into the world,
Ambition's paths to tread.
We bade good-by to Martin's Hill
And youthhood's sweet abode,
And shouted in an undertone
For men to "Clear the road!"

We found along the paths of trade
Another Martin's Hill;
With men at break-neck pace a-coast,
With voices loud and shrill
Who never halted on their way
Where fortune's fancies glowed,
Who shouted loud from morn till night
That warning, "Clear the road!"

JOE CONE.

Marconi.

Prospero's Ariel, in our Shakespeare's phrase,
In forty minutes round about the earth
Would put a girdle, 'compassing its girth
With thought's electric band. Our fathers' days
Marvelled how poets, in their fancy's maze,
Could bring so vain a prodigy to birth
And, 'twixt their surmise and their scoffing mirth,
Deemed it a phantom of a dreamer's lays!
Yet you, Marconi, you have shamed us all—
Poets or builders in the realm of things—
Stern realist or scaler of the steeps,—
Blithe Ariel is a droner by the wall,
And Thought herself has ta'en your magic wings,
Speeding to Thought across the awful deeps!

DECEMBER, 1901. JOHN JEROME ROONEY.

The Windyvillers Again.

The friendly neybors came to rest
Within the village store,
Where Perkins de'lt out kalker
And sugar fur galore.
An' as they sidled cosily with faces bloomin'
Rosily, an' 'howdy'do's' of greetin'
To the 'lected place of meetin'—
Amaziah Zeb'sul Timpkins took the middle of the floor.

"Thur hain't no sense ner reason,"
Sed 'Maziah with a wink,
"Why other folks should kick ag'in
Jest what a man'll drink."
An' then he ambled loftily with Perkins creepin'
Softly down the old stairs a-creakin'
Where the cider was a-leakin',
Frum the barrel thet was bustin' from the spigot to the sink.

Then Hezekiah Slocum took
A herrin' frum the pail,
An' peeled it frum the gizzard
To the nether end of tail;
An' leanin' casual he sighed: "In Kennebunk yer see
They dried the codfish on the sandy
Beach, b'gosh! where all was handy—
But here they fasten herrin's down—an' do it with a nail."

Sed Perkins, the proprietor,
When all was sed an' done:
"Say, Asarial Peterkins,
Concarnin' of yer son—
He's slipt in debt f'r cigarettes an' other thin's
To pay his bets—I wonder can you pony
Forty-five cents—thanks, I on'y
Menshuned this here slight occurrence 'cause the cash behind has run."

HORACE SEYMOUR KELLER.

To a Tortoise

From Lippincott's.

Paludal, glum with misdirected legs,
You hide your history as you do your eggs,
And offer us an osseous nut to crack
Much harder then the shell upon your back.
No evolutionist has ever guessed
Why your cold shoulder is within your chest—
Why you are discontented with a plan
The vertebrates accept, from fish to man.
For what environments did you provide
By pushing your internal frame outside?
How came your ribs in that abnormal place?
Inside your rubberneck you hide your face
And answer not. To science you're a Sphinx—
A structural epitome of missing links;
And when decapitated, still you swell
And kick and claw and scramble just as well
But I'll not plague thee. Even here I find
A touch of fellowship that makes me kind.
Sometimes a poet who has lost his head
Will keep on scratching when he should be dead.

CHAUNCEY HICKOX.

To a Venerable Lexicon.

From the Pall Mall Gazette.

(Among the "Cuneiform Texts from Babylonian Tablets," by Mr. Campbell Thompson, just issued by the British Museum Trustees, is a "clay" dictionary of B. C. 455-4.)

Hail, hail! clay wonder, venerable lexicon,
For lucky Nabu-kusur-zu compiled!
As with much-needed penetrating "specs" I con
Your text, to life I feel quite reconciled.
Quite recent seems to me the Onomasticon,
And Varro's works comparatively new,
But who could fail to grow enthusiastic on
Acquiring such a lexicon as you?

You came! No doubt from each Assyrian lip arose
"Where's China's Sammy Johnson now? Quite dead!"
While the exulting youth of great Porsippa rose
To maffick and to paint the whole town red.
We cannot prove—philologists defy us to—
But guess you soon so made your value felt
That Artaxerxes would instruct Darius to
"Just go and see how Nineveh is spelt."

The journalist—how hard it must have been on him!
For ages sought the wished for word in vain,
Till you supplied him with the frequent synonym,
And eased him of his labor and his pain.
The Babylonian bards whose hymns so capture us
Who understand them (that I don't is true)
Must have devoured you and departed, rapturous
To sing some fair Atossa's praise anew.

How oft the lover cursed the rhyme's elusiveness,
For lovers simply must have rhymed—they must—
Till you arrived to show them with conclusiveness
That rhymes are many as the grains of dust
Well, well! yet all my singing, I assert, is meant
To let Great Russell street obtain its due
For fifteen shillings—notice the advertisement!
I can become, nay, am possessed of you!

Contrasts in Rhymes.

From the St. James Gazette.

As sour as a lemon, as sweet as a nut,
As small as an atom, as big as a butt,
[illegible]

The Scot!

[illegible]

A Christmas Letter.

[illegible]

QUESTIONS AND ANSWERS.

During the late naval investigation at Washington Admiral Schley as a witness testified that at their meeting he assured Admiral Sampson of his loyalty to him. Can you tell me what had occurred previous to this to make any such assurance necessary? J. M. S.

Schley had been jumped by Sampson's promotion to the rank of Rear Admiral, commanding in chief; and he simply assured him that he would be a loyal subordinate officer. The assurance was not necessary, but was natural.

Stamped on the works of a "Grandfather's clock" in my possession is "Osborne Manufactory, Birmingham." If possible, kindly state the dates this firm was in existence—probably the latter part of the eighteenth or early in the nineteenth century. Though the clock is of English make, Chas. (?) Brandt, Philadelphia (evidently an agent) is painted on the dial. J. G. W.

Bruton's "Old Watches and Clocks and Their Makers," says that William Osborn [no e] was admitted a member of the clock company in Birmingham in 1700; his firm must have been well established by that time. There is no mention of the date when it went out of existence; it may be going yet, but undoubtedly William Osborn died during the eighteenth century.

Kindly tell me who was the author of the following lines and where I can find them. VETERAN.

Soldier, sleep well, your silent bivouac keeping;
Still heart, no more the bugles blow for you;
In benediction sweet, the stars are watching
The resting place of all as brave and true.
Soldier, sleep well, no sudden call to strife
Shall wake your soul to war's wild tempest blast;
The neighing steed, the clash of mingled stee.
Is hushed for you, death claims its own at last.

Can you tell me who wrote the poem of which this is the first stanza:

A long time ago, I remember it well,
Alone in a cottage a maiden did dwell;
She lived with her father and mother serene.
Her age it was red, and her hair just nineteen.

B. AND G.

Please relate the circumstances attending the death of the Prince Imperial in South Africa in 1879. Was Capt. Carey court-martialled for cowardice and acquitted? What was his subsequent career? O. M.

The Prince Imperial went to the front in the Zulu war as a spectator and on the day of his death, June 1, 1879, joined a reconnoitring party consisting of Lieut. Carey, six soldiers and a Zulu guide. The party off-saddled about noon, and were attacked by a large party of hostile Zulus; each man ran for his horse, and all mounted except the Prince whose stirrup leather broke; while he was trying to jump into his saddle, his horse plunging all the time, his rein broke and his horse bolted, leaving him alone. He was killed at once. Mr. Carey was court-martialled of cowardice, and convicted; but the reviewing authority set aside the conviction. He was promoted later, in the natural course of events; and died a few years afterward, after leaving the army in unofficial disgrace.

Has the electric plant which obtains its power from the Niagara River and Falls demonstrated that it is much cheaper to obtain power from water fall than from coal? E. H. W.

It is said to have done so; we see no reason why it should not.

Have the goodness to tell me the meaning of the word "Ikonas." It appears in Kipling's poem entitled "M. I.," published in one of the magazines. THIRTY YEARS.

A South African friend sends us this explanation of the word: "If you ask a Zulu for anything he always says 'Ikona,' which means 'there is not any' or 'I have none.' The expression has become slang and is used to express failure. The natives asked every soldier they saw for tobacco, but poor Tommy Atkins had to say 'Ikona' so often that the natives called him 'Ikona.' When Tommy came away from a battle where he failed to score he would say 'Ikona.'"

Kindly inform me how many horse power can be used on a steam vessel navigating in United States water, for pleasure purposes, without necessitating the employment of a licensed engineer. J. L. B.

The law seems not to say; launches of under ten tons need carry a licensed engineer, who may act as pilot, but all larger steam vessels need a licensed pilot as well as licensed engineer.

Will you kindly inform me if there are any mile stones on Manhattan Island similar to the one on Third avenue near Sixteenth street? What is the meaning of the figures in the city seal and what does the Latin motto mean? R. L.

There is a mile stone on the Bowery near Rivington street and another at Sixteenth street and Third avenue; a stone at Fifty-sixth-Fifty-seventh streets and Third avenue marks the fourth mile, and one at Seventy-seventh street the fifth mile. The third mile stone is missing. The city seal is symbolic of the trade of the town: the windmill, barrels, and beavers refer to the original actitivities of the city, the Indian and the Dutchman refer to the original owners and early settlers. The words mean: "Seal of the City of New York."

As a boy in Kentucky during the war, I was familiar with the song "The Bonnie Blue Flag that Bears a Single Star," and was told that it referred to the Texan flag. DAN BEARD.

It may have done so; but the Texan flag was composed of a blue canton showing one star, and a field of eleven stripes, alternate red and white. As far as we can ascertain, there never was a real blue flag with a single star.

1. On the new issue of "ten-dollar" bills are the pictures of "Lewis" and "Clark." Can you tell me who these men are? 2. What is the rule or custom about placing portraits of prominent men on our currency and should not the list be confined to the Presidents? M. K. LEWIS.

Meriwether Lewis, Captain, U. S. A., and William Clark, Lieutenant, U. S. A., were distinguished explorers of the Northwest. They set out from St. Louis in 1804, ascended the Missouri, and in Nov. 15, 1805, reached the mouth of the Columbia River. They returned in 1806, reaching St. Louis in September. Lewis, who had been Secretary to President Jefferson, was made Governor of Missouri territory. He was subject to fits of melancholy, during one of which he killed himself, on Oct. 8, 1809, when only 35 years of age. William Clark was born in 1770; was really the military director of the expedition, assisted in the scientific arrangements, and kept a journal, which has been published. He left the army in 1807; was Indian Agent until made Brigadier General for Upper Louisiana; and refused a similar army appointment in 1812. He was Governor of Missouri territory from 1813 to 1821; in 1822 he was Superintendent of Indian Affairs at St. Louis, a post which he held until his death in 1838. 2. The list is not confined to Presidents, but no living persons are portrayed.

1. What is "Squaw Winter," why so called and what does it mean? 2. What is "Indian Summer," and when does it come, and why so called? C. W. R.

1. We do not know, unless it is the cold spell that generally comes in spring. 2. Indian summer, called abroad St. Martin's summer, is the warm days that come about the middle of November; the Indians were said to gather their late crops during these few days. In this latitude, Indian summer is known only when it is ended, as a rule.

Does any competent astronomer indorse the statement of Dr. Bailey of Danbury that the earth and all the planets will be in the same position this December that they were in the days of Noah? ENQUIRER.

We do not know; let some competent astronomer confess.

We frequently see "St. Joseph's Church," "St. Mary's Academy," "St. Vincent's School," written with the sign of the possessive case, while in writing Harvard or Yale College we do not see it. Kindly tell us if the possessive sign is wrong; if so why, if not, why omit it in writing the above named colleges? J. M. S.

The possessive case is right in the cases you suggest; those institutions are dedicated to the saints named, and are the churches, &c., of those saints. But Harvard College is not dedicated to John Harvard, and is not his college; nor is Yale the college of Elihu Yale.

[illegible]

M. F. F.—The Fourth of July is observed as a holiday in every State.

SCIENCE.

IS THE CLIMATE CHANGING?

The following paragraph from a recent letter of the Chief of the Weather Bureau bears on the question whether the climate has changed in recent times. "In the first place, instrumental data are not available in any part of the world for a longer period than 300 years, and even these are not accurate. The effect of man's occupancy of the earth is an unknown factor. Through his agency large areas of the earth's surface have been deforested and cultivated. Water has been diverted from streams and spread over the soil, thus transforming deserts into fertile plains. The latter, in turn, through the varying fortunes of empires have again become arid. While the total effect of such changes as man has wrought is probably small, who shall say that it is absolutely *nil?* In the second place, the records of the Weather Bureau show that during the last fifty years there have been three marked cold periods in the South Atlantic States, viz., from 1852 to 1857, both inclusive; from 1871 to 1875, both inclusive, and from 1892 to 1901, both inclusive, a total of twenty-one years out of fifty. All of the years within the above-named periods were not uniformly cold. Indeed, within the last-named period there were two normal winters, viz., 1894 and 1898. The final conclusion appears to be that the statistics show no progressive change in climate in this region, and that there is no known *a priori* reason why there should be such a change."

WIND VELOCITY IN A TORNADO.

From photographs and measurements of the waterspout seen off Cottage City, Mass., in August, 1896, Prof. Bigelow has recently calculated the wind velocities, &c., as follows, in miles per hour:

Height above Sea Level. Feet.	*Diameter of Tube.* Feet.	*Velocity of Rotation.* Miles.	*Vertical Upward Velocity.* Miles.
4198	3402	14.1	0.04
3901	506	94.4	2.50
2999	250	189.0	9.90
1802	178	268.0	19.80
1201	158	300.0	24.70
479	144	333.0	29.70
0	134	354.0	34.60

Dimensions and velocities like these characterize the largest tornado tubes and, together with the fall of internal pressure by the amount of three or four inches, readily explain destructive efforts such as those observed at Louisville and St. Louis recently.

LUMINOUS MUSHROOMS.

Mr. MacAlpine has printed a research on luminous mushrooms, of which he enumerates twenty-one different species. Eleven of these belong to the genus *Pleurotus* and five of them are found only in Australia. The luminosity is not due to the presence of phosphorescent bacteria, but is due to a process of combustion, which depends on the presence of oxygen and on high temperature. It is not affected by humidity. It is probably useful in attracting the insects that disseminate the spores.

HYDROGEN A NON-CONDUCTOR OF ELECTRICITY.

Prof. Trowbridge of Harvard University prints in the *Philosophical Magazine* researches which lead him to the conclusion that pure hydrogen is a non-conductor of electricity. An electric discharge cannot penetrate an atmosphere of pure hydrogen, nor, in fact, any gas. In ordinary cases the spark is transmitted by the *ions*, resulting from the decomposition of water. Schumann has shown that pure hydrogen at atmospheric pressure transmits ultra-violet rays as freely as the most perfect vacuum. Hence, this gas, by Maxwell's theory, must be a non-conductor. Prof. Dewar has also shown experimentally that liquid hydrogen is a non-conductor.

MECHANICAL THEORY OF VISION.

Mr. A. Pizon proposes to substitute a mechanical theory of vision for the chemical theory, which leaves many phenomena unexplained. He has shown that in the visual organs of all the vertebrates and invertebrates, simple or complex, the pigmentary granules that accompany the visual cells are, without exception, in rapid motion like that of micrococci.

The presence of these granules in immediate contact with the visual cells and the constancy of their motions lead naturally to the conclusion that they serve as intermediaries in the excitation of the cells. The granules acquire their energy from the light and transmit it to the rods and cones of the retina with which they are in contact, and from them it travels along the optic nerve. This simple theory removes several difficulties in the theory of vision and changes the received notions of the importance of the purple of the retina, &c.

THE PERSEID METEORS OF 1901.

At the observatory of Athens the meteors whose radiant is in Perseus were well observed and the following conclusions were drawn:

1. The Perseids were more numerous in 1901 than in 1900.
2. The radiant points were not widely dispersed.
3. The maximum occurred Aug. 11, 1901.
4. The radiant point of the swarm was sensibly displaced.
5. The greater part of the meteors were faint and yellow or reddish yellow in color.
6. Beside the Perseids other meteors were observed with radiants in other northern constellations.

COLOR OF THE HAIR AND IRON IN THE LIVER OF ANIMALS.

M. Floresco has communicated to the Academy of Sciences at Paris proofs that there is a fixed relation between the quantity of iron in the liver of animals and the color of their skin and hair. Animals of dark hair contain nearly twice the amount of iron and pigments in the liver and skin as those of white hair.

BALDNESS IN MEN.

In his volume on the diseases of the hair, M. R. Sabouraud refutes some popular errors regarding the cause of baldness. Baldness is usually considered an infirmity of old age, and when it takes place in early life all sorts of explanations are invoked, one as baseless as another. As a matter of fact, the critical age for baldness in men is from 20 to 30 years. Women are less open to the attacks of the microbe of this disease. The earliest baldness occurs in young men of from 16 to 18 years, and the skull is often bare at 22. The most common age for the beginning of the disease is 23 and the baldness is usually complete at 50. The latest age for the beginning is about 40, and in such cases the denudation of hair proceeds with extreme slowness. The younger the subject the quicker the disease attains its complete effect. It is not a malady of the aged, but rather of the young.

THE PROGRESS OF CIVIL ENGINEERING IN THE LAST CENTURY.

Mr. Charles Hawksley in his presidential address to the British Institute of Civil Engineers reviewed the progress of civil engineering in the nineteenth century. In 1811 mail coaches took forty-one hours for the journey from London to Holyhead. Even in 1837 the journey took twenty-seven hours. The first railway for passengers came into service in 1825. During the century about [illegible] were invested in building railways. [illegible]

[illegible]

BRIEF APPRECIATIONS OF SOME AMERICAN PAINTERS.

X. Alexander H. Wyant.

There is a species of ivy in England—I do not know if it exists in this country—that grows over old stone walls and towers. It is tree-like in character and size. Probably it was never planted deliberately against the masonry, but reached its *habitat* by one of those romances of nature's accidents. Finding the support that its young life needed, it clung and mounted; gradually, however, gaining independent strength until in the maturity of its growth it has its own boughs, so hardy that a man may climb by them, and puts forth bunchy masses of leaves and berries that disguise the original support in a luxuriance of independent growth.

Such is often the story of an artist's growth, and was so in that of Wyant's. In the small town of Defiance, in Ohio, where he was born, there was little to suggest to the boy what pictures meant, and yet he had the picture-making faculty in himself; the observant eye and desire to translate into line the forms of things. He drew incessantly; the forms of stones, of banks and tree roots, their stems and branches, and made studies of the leaves, separately and minutely as well as in masses. I like to think of him, as a child, lying full length before the kitchen fire with a bit of burnt wood taken from it, drawing on the floor; and fancy that in that soft, suggestive medium of charcoal and on the rough surface of his improvised panel, he may have got his first dim consciousness of the meaning of synthesis in landscape; the securing of character and tone, and the fascination of working in masses rather than in outline. When he was old enough to be set to a trade, it was that of sign painting that was chosen. But all roads lead to Rome, and a youth might derive much skill in form as well as breadth of manner in this humble department of the fine arts. Somewhere about the fifties he found himself in Cincinnati, even then an oasis in the desert of Western indifference to or ignorance of art. It was here in a private collection that he first discovered what painted pictures were like and, with a rare instinct for one so young, it was Inness's work that captured his imagination. A youth, passionate and eager as Wyant was, must have his god or goddess, a being infinitely above him, yet, perhaps, of infinite condescension, who will listen to his devotion. Some of us may have offered our heart and future to ladies nearly old enough to be our mothers; Wyant's divinity was of the other sex, an Apollo at whose oracle he would inquire. He found the means to come to New York and lay his sketches before the master, and never forgot the kindly criticism which bid him be of good courage and persevere.

He was now about 20 years old and nearly ten more years were to elapse before his own independent growth was to establish itself. Meanwhile its direction had been assured by the influence of Inness; its manner of growth was to be partly affected by the Norwegian painter, Hans Gude, who had graduated from Dusseldorf and was at this time working in Carlsruhe. He had been the pupil of Achenbach, who, as Muther says, had "taught him to approach the phenomena of nature boldly and realistically and not to be afraid of a rich and soft scale of color." He had felt the influence, also, of Schirmer, whose fondness for the so-called Italian landscape had guided him to the "acquisition of a certain large harmony and sense for style in the structure of his pictures." Such was Gude, to whom Wyant went for instruction. He spoke in after years of the kindness with which he had been received as almost one of the household of the painter and his good frau, and one may imagine that the student took much profit from the master's emphasizing of form and construction and also from the reposeful dignity, academic though it was, of his compositions. But when the older man passed from the teaching of principles to that of methods and urged his pupil to imitate his particular manner of presenting the truths, Wyant's independence rebelled. He had learned what could properly be taught and, recognizing that for the rest he must depend upon himself, returned to New York.

Face to face with the problem of making a living and hoping to gain useful experience, he joined a Government exploring expedition to the West. But the party suffered terrible hardships to which Wyant's physique succumbed. He was put upon the train to return East and might have stopped at his mother's home to be nursed and cared for. And much he needed tending for he was helpless, stricken with paralysis; but the mind in his poor body was still active, he argued that to be taken off at a far Western station was to become stranded, to lose all touch with the painter's life, on which his determination was still fixed. So he let himself be carried past his home and reached New York. No words can add to the pathetic heroism of this decision; but in our admiration of the delicate poetry which belongs to the work of Wyant that we know best, let us not lose sight of the force of will power that was involved in the making of it. "Yes, he had been in hell," exclaims Carlyle of Dante; and while suffering may not be the only road to highest effort, it is one of them and the man who passes along it like a man, even if he cannot tread it, but must be carried, as in Wyant's case, is very apt to produce something more than ordinarily appealing to the hearts of other men. While Wyant recovered the use of his body, though obliged ever after to paint with his left hand, he was never really free from some bodily discomfort, and I wonder whether this may not have had some influence upon his notable preference for depicting nature at the hush and restfulness of twilight. To one whose days were, more or less, days of weariness constantly sensible of the afflictions of the body, with what a benediction the evening would come, full of spiritual refreshment! Out of the cool cisterns of the night his spirit would drink repose.

For many years he made his summer home in the Adirondacks [illegible]

[illegible]

nate sun and shadow, that inexpaustible mystery of nature's peace that passeth man's understanding. We have all felt it and know how far it is from our every-day lives and we look to word poets and to poet painters to create an illusion of it. Surely no American painter has done this more irresistibly than Wyant. Nor is there wanting to the peace of his pictures at times a more solemn suggestion. While so many of his twilights breathe simply the ineffable loveliness of quiet, others are astir with persuasion to spiritual reflection, with the gentle admonition to sadness that itself is purifying, or with deeper, fuller suggestion of the infinite mystery of natures' recurring sleep that swallows up the littleness of man in its immensity. I remember, too, a little picture of darkened earth and rather turbulent dark sky in which a large boulder alone glistens in the fading light; a rock of illumination and strength in the surrounding uncertainty of gathering night. Brimming over with the suggestion of an elevated melancholy sustained by faith and painted with an extraordinary earnestness of simple and direct conviction, it seems like a symbol of Wyant's own art life.

But almost everything that he painted is expressive of some phase, at least, of himself. His work is more than ordinarily personal; perhaps, for the reason already mentioned, that he so deliberately concentrated his motives. And the quality of his poetry was lyrical. I have seen it called idyllic, but that is to miss its higher and deeper qualities. The idyl, Tennyson notwithstanding, is too much identified with the little pastoral poem, that breathes the simple gladsomeness of the meadows; but a more serious strain is interwoven with the gentleness and lovableness of Wyant's muse. He was passionately fond of music and, before his illness, could play the violin, not learnedly, but with true feeling. And the music of his painting is that of the violin; tenderly vibrating, searching home to one's heart, by turns lightsome, melancholy, caressing, impetuous, but with a tenderness in all. He did not play on many colors, but reaches a subtlety of tone, often as bewildering as it is soothing. The bewilderment will be aroused as much by his shadowed foregrounds as by the faintly luminous sky. They defy analysis and are triumphs of impressionism. Impressionism of the true kind, I mean; pregnant with suggestion and divested of aught that would clog its directness; not exhibiting knowledge but the fruit of knowledge and especially its tact of omission. To the careless and commonplace eye his landscapes have "nothing to them;" approached with a little understanding, they mean so much, and the measure of their meaning is the technical knowledge involved. If there was any doubt of this, it could be disposed of by an examination of his earlier work in which he lets one into the secret of his love of form and construction. Admirably sure and full of character is the drawing of the ground and its features, bit by bit receiving its due share of individuality; so also with the trees and their anatomy of trunk and branches and with the structure of the sky. Everything has been studied, so that later out of the abundance of his technical skill he could be significantly spontaneous. Yet increase of facility did not lessen the self-exacting conscientiousness of his work. Some of his most impressionistic pictures were the result of trying to reach a fuller exactness of expression; when, finding confusion growing, he would seize another canvas and return to the simplicity of his original thought, and let it form itself. Few painters are better represented in their extant works. The fumbled canvas or the one that, however sketchily, did not attain to his intention, never left the studio, and after his death, Mrs. Wyant, with a fine regard for his memory and with honor to herself, destroyed them. So the real Wyants—for I am told there are sham ones on the market—are invariably worthy.

So truly did he retain the spirit of the student that it was not until a little before his death that he allowed himself to feel that he had mastered the grammar of his technique. Then, with the consciousness of his end before him, he would exclaim: "Had I but five years more in which to paint, even one year, I think I could do the thing that I long to." Brave, modest soul! What he might then have done we shall never know, but what he did do we know to be very good. For another nature poet of our race, of like simplicity and singleness of love for nature, of as choice and elevated a spirit, and as lyrical in expression we must go back to Wordsworth, who also in his communings with nature found her message

Of truth, of grandeur, beauty, love and hope,
And melancholy fear subdued by faith,
Of blessed consolations in distress,
Of moral strength and intellectual power,
Of joy in widest commonalty spread

C. H. C.

POLITICAL NOTES.

Manhattan borough is paying 71 per cent. of city taxes this year, Brooklyn 20¼, Bronx 4, Queens 3 and Richmond 1½.

Next year's appropriation for the Civil Service Commission, municipal branch, is $56,000. The State expends for the same purpose $40,000, of which $2,450 is for printing and $11,000 for postage.

The application of Arizona for admission to the rights of Statehood is based less upon its growth in population than in wealth and manufactures. By the census of 1870 the investment in manufactures in Arizona was only $150,000. In 1890 it was $270,000, in 1890 $615,000, and last year $[illegible]100,000, an abnormally large increase. Of this total $7,255,000 represents the capital investment in copper, $[illegible] in railroad car shops located in Arizona since the period of the last census, and $[illegible] in tree cutting, the other local industries of Arizona being newspaper printing and the manufacture of artificial ice.

Next year's appropriation for the maintenance of bridges over the Harlem River connecting Manhattan with the Bronx, the number of which bridges is being steadily increased, is $185,000. For the maintenance of bridges across the Bronx River $[illegible] is appropriated, for those across Newtown Creek an equal amount, for the maintenance and repair of bridges in Queens, $30,000, and for a [illegible] in Richmond $1,200. There are few bridges in Richmond. The whole expenditure of the [illegible] of bridges in Greater New York is [illegible] [illegible]

John H. J. Ronner, the Register-elect, was born [illegible] years ago in the Sixth Ward. He began his business career as a cabinet manufacturer. For several years a Tammany Hall district leader in the Bronx, Mr. Ronner quit the Tammany [illegible] and worked for the election of Louis J. Haffen as Commissioner of Street Improvements in the Twenty-third and Twenty-fourth Wards. [illegible]

A Survival in the Coronation Service.

[illegible]

How to Maintain Living.

[illegible]