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# MARSHLANDS. 

A Monthly Magazine.
Vol I Amherst, N. S., March, $1896 \quad$ No 4

The Oldest Living Sister of
Charity. Gro. Barton in Donihoe's.

If nobility of character, earnestness and purity..of purpose, great natural executive ability, together with unaffected piety and hur.ihty, count for anything in this uncertain world, Sister Mary Gonzaga of Philadelphia will rank high in the bright galaxy of women whose lives have illumined the history of Catholic Sisterhoods in the United States. Sister Gonzaga has a remarl:ably long and eventful history. Celebrating her golden jubilee more than eighteen years ago, she can look back over a series of years in the course of which she has been teacher, nurse, Mother Supezior, head of a large orphan asylum, and the executive of a great military hospital, where nearly fifty thousand sick and wounded soldiers received the selfsacrincing attention of a staff of forty Sisters of Charity. Sister Gonzaga, who is credited with being the oldest living Sister of Charity in the United States, is now speriding the tranquil evening of a busy:
and eventful life, as the Mother Emeritus of St. Joseph's Orphan Asylum, one of the magnificent charities of the City of Brotherly Love.
This venerable woman's name in the world was Mary Agnes Grace. She came from a respected Baltimore famıly, and was born in that city in 18i2. In Decenuber, 1823, she was sent to St. Joscirin's Academy, Emmitsburg, Maryland, and the four years she spent in this institution helped to make that certain foundation upon which her subsequent successful career was built. She had early conceired the idea of retiring from the world and devoting her life entirely to the service of God. Accordingly on March II, 1S27, she was received into the community of the Sisters ai Charity of St Vincent de Paul. In April, iS2S, in company with Sister Stanislaus McGinnis and Sister Lucy Ignatius, Sister Gonzaga went to Harrisburg, Pemnsylvania, to open a school. On the 25th of March, 1930 , she made her holy vows, and two months later was sent to Philadelphia to St. Joseph's Orphan Asylum, with which her future years were to be so intimately comnected.

On Octoher 24. 1S36, the institution was removed to its present site, and upon the death of Sister Petronilla, the superioress in August, $1 S_{43}$, Sister Gonzaga succeeded to its management and remained in charge until October, is44. Here she went on with her good work, placid and calm in the midst of the turbulent waves of anti-Catholic bitterness and persecution, which at times threathened the lives of innocent women and children. In the latter part of i844 she was sent to Donaldsonville, Louisiana, as assistant in the novitiate of Southern postulants.
After some years of service in New Orleans and a reassumption of her charge at St. Joseph's, Philadelphia, she was sent, in IS55, to the Mother House of the Order in France, where she remained a year, obtaining and imparting much valuable information regarding the work and duties of $S$ ers in an administrative capacity. In Mady, 1856, she returned to the Uniced States, and the following year took charge of her old love, St. Joseph's Asylum, for the third time.
The begiming of the Civil War, a few years later, was to mark the most eventful epoch in the career of Sister Gonzag. and to develope her extraordinary qualities of administration. The Satterlee Military Hospital was established in Philadelphia. IJr. Walter F. Atlee. who is still living, an honored physician of the Quaker City, felt that the interests of the government and of the soldiers would he benefited if the Sisters of Charity were installed as nurses in the armv hospital. He had several interviews wita the sur-geon-general and with Secretary of War Stanton. As a result of this the Sisters of Charity were invited to assume charge.

On June 9, 1862, Sister Gonzaga, accompanied by forty Sisters, assembied from all parts of the ruited States, left
the asylum and entered upon their duties in the hospital. It is difficult to estimate the grood work done by them during the period they spent in this place, which has been aptly styled the"shadow of the valley of death." In those three momentous years they nursed and cared for upwards of forty-eight thousand soldiers. Only those who have had the care of the stek can begin to estimate the amount of ceaseless labor and patience involved in such a vast undertaking. The sick and wounded comprised both Cnion and Cunfederate soldiers, and the gentleness of the Sisters endeared them to all under their charge.
Sister Gonzaga, although in her eightyfourth year, still retains clear and vivid recollections of those trying times. She rarely introduces tile subject herseli, but once it is brought into conversation, she talks with enthusiasm upon it. The hospital was one of the largest in the country, and everything was arranged on a generous scale.

Sister Gonzaga remembers two events in the history of the hospital with particular distinctness: the first was after the battle of Bull Run, and the second the days following the battle of Gettysburg. After the battle of Bull Run the soldiers were brought to the hospital by hundreds. At the time of the three days battle of Gettysbury there was a terrible period of suspense for the people of Philadelphia. They knew that a battle was taking place somewhere in the neighborhood of the State Capitol, but they had no information regarding the result. The earliest intelligence came with the first consignment of wounded soldiers to the Satterlee Hospital. Then there was much rejoicing over a Cnion victory. The sick and wounded from the blood-stained battlefield were received in thousands. One
careful estimate puts the number at four thousand.

Such an emergency as this tested the capacity of the women in charge, but Sister Gonzaga came thr ugh the ordeal with flying colors. The surgeon in charge of the hospital was IDr. Isaac Hayes, who achieved much fame in the celebrated Kane Arctic Expedition, and who afterwards headed an expedition of his own. The wards of the hospital were very commodious and comfortable, each one accommodating at least seventy-five patients.

Dr. Hayes was a kind father to the Sisters, consulting them upon everything that would contribute to their comfort and happiness. Through his kind offices and those of Dr. Atleo they secured a c!aplain, Father Crane, who said Mass for them once a week.

Thene is an old and very rare print of the Satterlee Hospital from which it is clear that the Huspital occupied many acres of ground. Yet the histories of Philadelphia 1 main singularly silent regarding it.

All during the war Sister Gonzaga, besides managing the hosp:tal, remained in charge of St. Joseph's Asylum, which she visited at regular intervals. $r$. At the close of the war she relinquished her work at the Satterlee Hospital to give her whole time to the asylum. the other Sisters fru.at the hospital returning to their rarious missions.

Sister Cionzaga has had frequent visits from grateful soldiers who were nursed back to life through her Christian derotion. Ohe who heard of her aerious illness a few years ago, called upon her, and then as the outpuming of a gratefnl heart sent the following letter to the Philadelphia Eicning. Stur as "a soldier's tribute to the noble work of Mother Gonzaga during the war:'-

In your valuable paper dated yesterday the announcement was made that Mother Gonzaga, in charge of St. Joseph's Orphan Asylum, southwest corner Seventh and Spruce streets, was lying dangerous$1 y$ ill. In reciting her many acts of charity for the young orphans under her care and protection, victims of epidemic, etc., during the many years of her life, you were not aware that the short notice touched a tender chord of affection in the breast of many a veteran of the late war.

Mother Gonzaga was a mother to sixty thousand soldiers, as patients under treatment in Satterlee United States Hospital, Forty-fourth and Pine streets, fron $1 \$ 62$ until 1865. Those who were under her care, no matter of what religion or creed, who received the midnight visits of Mother Gonzaga, made in silent steps atter "taps," and by the dim gaslight, will recognize her familiar countenance surrounded by that white-winged hood or cowl. They will recall her form bending to hear the taint breath or whisper of some fever patient, or to attend to some restless one th:rowing off the bedclothes, kindly tucking them in around his body as a mother would to a child, then gliding to the dying to give them expressions of comfort-those who recall these scenes, I say, think of her truly as an angel of peace and sweetness.

Administering medicine when required, loosening a bandage or replacing the same, watching a case of a sufferer in de-lirium-at all times annoying to those near him-was her daily duty. To see her always calm, always ready, with modesty and fidelity faithfully performing a Christian duty as an administering angel, when plysicians, surgeons, friends, and all human aid had failed, was a beautiful sight. No poet could describe, no antist could faithfully portray on canvas the scenes at the death-bed of a soldier
that would convey to those not having witnessed them, the solemnity of the quiet kneeling, the silent prayer, a murmur faintly heard as a whisper, of a Sister of Charity paying her devotion to Him on high, and consigning the spirit of the dying soldier to His care.

As one of many thousands under her care, I shall always think of Mother Gonzaga as one of a constellation of stars of the greatest masnitude-surrounded by many others that were devoted servants, among whom I might mention Dorothea Dix, Annie M. Ross, Hettie A. Jones, and Mary Brady. We soldiers cannot forget the service they rendered.

> J. E. Maclaties.

During the years succeeding the war, Sister Gonzaga devoted her energies to building up St. Joseph's Asylum, and much of its success can truly be attributed to her energy and ability.

On the 12th of April, 1877, Sister Gonzaga celebrated the occasion of her golden jubilee in the Sisterhood. On the previous igth of March she had attained her fiftieth year in the community. It was an event not soon to be forgotten, She on that day received the blessing of the Holy Father, Pius IX, and bishops priests, Sisters, and the laity vied with one another i: showing the reverence and esteem in which they held the simple religious,

Ten years later she was recalled to the Mother-House at Emmitshurg by her superiors, who desired to relieve her of her responsibility as the head of such a large institution. Born to obedience, she promptly reaponded to the order, and left the house which had become as a home; left friends who had become endeared to her, and orphans who truly regarded her as a mother. There was not a murmur from this woman who was be-
ing taken away from associations with which she had been lovingly and intimately associated for nearly half a century.

Her Philadelphia friends, without solicitation, spontaneously addressed petitions to her supuriors requesting her return to the scene of her life's labors. In the words of one who loved Sister Gonzaga, "Heaven was stormed by fervent prayers for the return of the mother of the poor." She remained at Emmitsburg for sixteen months, and at the end of that time returned to Philadelphia. Her home-coming on the 2oth of Decemher, 1888 , was made the occasion of a great demonstration. The Sisters, the orphans, the managers of the asylum, and a host of friends participated.

She has remaned at St. Joseph's Asylum ever since-the pride and ornament of the institution. Increasing age prevents her from supervising the active management of the asylum. Her experience and advice, however, are always at the disposal of others, and Mother Mary Joseph, the present head of the house, frequently consults her venerable predecessor on matters of management.
The actual extent of the good done by Sister Gonzaga is scarcely realized by those who are around her. Many of her charitable acts have been done quietly, even secretly. There was one story with almost the pathos of a tragedy in which she was concerned. The daughter of an estimable family went astray, and the parents in the first violence of their anger and grief turned her out of the house. A few months passed, and then, their better judgement gaining sway, they attempted to find and forgive the child they had disowned. But they searched in vain, and finally in despair turned to Sister Gonzaga. She had not the slightect clue to the missing girl, but she pledged
herself to bring her back. In a short time she located the erring one in the insane ward of the Philadelphia hospital. The giri was restored to her remorseful parents, and by careful nursing was grad ually brought to reason.

Sister Gonzaga has a countenance of great benignity and firmness, a ligh furehead, a kindly mouth, and eyes which even age has not been able to dim. She is a model of graciousness and good breeding, and her well-balanced and welltrained mind is seen in a remarkably strong and accurate memory. The story of her life is well worth the telling, serving, as it does, as a model and incentive for those who would be successful in their chosen vocation. Sister Gonzaga's magnificent work has practically been unknown to the world. Beyond a fugitive paragraph now and then in the newspapers, nothing has been written concerning her wonderful labors in peace and war. Snch a thing as a complete sketch or biography has never been attempted. A reflection on this fact is not without profit. Sister Gonzaga of course stands out conspicuously as a woman of great force and power; but there are many hundreds of others who are quietly, unostentatiously doing work which, if it were properly known, would be appreciated and applauded by the world

## "An Old Timer."

A story is told of that witty genius Sir Hastings Doyle, something as follows: While he and a number of his friends were spending a social evening after the manner of their times, one of his guests, Sir Edward Kenny, while drinking a slass of champagne accidently swallowed a bit of the cork.

After a very exciting scene of fear and dismay, he succeeded in getting Sir Edward to rights and relieved of the cork. Sir Hastings quietly remarked, "Gentlemen, I never knew cork was on the road to Kilkenny.

## Domestic.

We have heard it said of a W. C. T. U. lady, that in presenting a plate of bread to a tramp, she accompanied the gift with the remark "I do not do this for your sake, but for Christ's sake." Mr. Tramp quietly remarked, "then for God's sake please put a little butter on it."

We often see a woman with a bold dashing aspect, driving with careless ease a beautiful horse up and down the Main Street ; quite as frequently we also see a gentleman, prominent in social, political, financial, and church matters, drive a fast, beautiful thoroughbred hitched to a racing gear. Such display goes far to antagonize the efforts of the Y. M. C. A. and ye editor with our young growing folk.

Sorry we were to see our great Cumberland politician return to active public life. We only hope he will have no chance to realize, as so frequently champion athletes have, that they had grown old and lost their great powers, only to fully realize this after a stinging defeat at the hands of some young-ster-we hope not.

It is said our new Mayor is already becoming "Cocky," now draw it mild our litte man, our sweet William.

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AMHERST, MARCH 1896.

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## Summer Resorts in N. S.

We left our tourist friends just outside Halifax. Bedford by the way is a charming spot overlooking that wide and beantiful sheet of water, Bedford Basin. It seems almost absurd to say anything about Halifax, it seems to us so well-known in almost every particular, yet for the sake of those who may read this sketch, hastily drawn, of our.summer resorts, we will endeavour to explain things as we know them. In the first place, Halifax has one of the finest and one of the safest harbors in the entire world, despite the fact that nearly every Maritime Country claims about the same thing ; Sydney, Cape Breton ; Sydney, Australia ; and New York Harbor, all make the firstclaim, allowing any of the others second place. We have seen three out of the
four great harbors, but must say Halifax stands iirst for beauty and quite equal to the others in safety and size. Having viewed Halifax Harbor from every point of view possible we must say we can not believe that it has an: equal in the whole big world for splendour and beauty, not excepting the Bay of Naples, so celebrated for its beauty. Probably to see it in all its glory and beauty-beholding it from a high point on McNab's Island on a bright summer's day it shows you its richness in full, it here appears as a vast burnished silvery ring, George's Island the setting of an emerald gem, while the dark blue amphitheatre of distant hills curve completely about the scene, strongly outlined against the azure horizon. Being nearer England and Ireland than New York by some 400 miles, it will undoubtedly in time be the point of departure for the passenger travel at least. of the U. S. and the Dominion, particularly as the West developes. Though so far North it does not freeze over, or rarely, and then not enough to hinder navigation; it stands third, we believe, in the amount of steamboat tonnage on the North American coast. But we have departed from the object of this article. Those who enjoy boating, rowing, or sailing, can here have it to their heart's content. You can hire for a reasonable figure anything from a racing shell to a yacht, and though often squally on the harbor yet not at all dangerous, with the native boatman in attendance. As there are almost always several men of war lying in the harbor you can have a fine
chance to to look through one of Brit- as it is called, you will look up a ain's bulwarks, and quite a treat to scene famous for its rare lorliness. St. row alongside of one of them and en- John and envious people generally call joy the music of the ship's band as they usually play an hour in the evenings. Music, it always appears to us sounds better on the water than ashore. Certainly it is very pleasant indeed ; the soft evening air,the numerous skiffs lying about, your troubles, care and work laid aside for the time being at least, the gentle roll of your boat, all taken together gives an hour or two as pleasant as one ever has in his life. Those having friends in the city will have much social pleasure, as the people of Halifax cannot be excelled socially, and they know how to do it too, heart and hand both at your service. The roads all about the city are excellent for driving, walking, and bicycling.

A few hours spent inspecting the citadel and fortifications will prove of great interest to many. The streets are enlivened by the red coated soldiers, there being some 1700 or 1800 always stationed here and in the vicinity. Point Pleasant is a lovely spot, full of romantic, pleasant drives, cool shady walks, while at the Point itself, you will generally have the surf rolling heavily in, and after a storm the sight of the huge breakers rolling, dashing in toward you has an inspiring effect. Near this point there grows a bed of genuine Scotch heather. probably the only patch of real Scotch heather in the Maritimes. From the Point where the surf rolls heavily up to the head of the arm, the North-West Arm
the average Haligonian a slow coach. Well! Why not ? if one can afford to take life easily. They are a lot of good fellows anyway, and gentlemen to boot. No city of its size we ever heard of has so many charitable institutions. A morning spent at the market will well repay our tourist friend, especially if he has a good sense of humor. There are a number of fine public buildings but there are also many old rookeries, relics of the past that mar the more modern affairs, yet the great natural beauty of her situation and surrounding charms more than makes up for man's crudities in art Cow Bay about 6 miles from the city is a wonderful place for surf bathing. A stretch of a mile or more of sand with not a rock or pebble on, or in it. We don't yet realize what we have in Nova Scotia.

## Notes on the Eye.

A perfect eye exists only as an ideal.

About one pair in 4 or 5 are practically perfect.
Farsighted persons are born so; they can see distant objects comparatively well.

Shortsighted people acquire this defect; they see well when the object is near.

Crossed eyes are always farsighted;
cye. that turn out are nearly always shortsighted.

When the front part of the ball is irrugularly shaped, it is called astigmatism.

- Asiigmatism very frequently accompanies short and farsighted eyes, and necessitates glasses ground to special order.

The power to see stars millions of miles away, and to see distinctly objects but a few inches away, is called the "power of accommodation."

The power of accommodation is lessened in old age, and greatly diminished in farsighted eves.
'The normal shaped, healthy eye, lool ny far away, is at rest: it is only .as the oljeet comes near that you save to use the power of accommodation. this involves no conscions effort in the well-formed eye.

This effort of accommodating the sight for any distance, is done be a small muscle within the eye which surrounds the lens; the lens is a convex transparent body just back of the pupal that bends the rays of light entering the cye to a sharp focus on the back or retina of the eye.

Farsighted eves have to accommodate for distance, and more powerfully accommodate when the object is brought nearer. hence such eves get fatigued and painful very quickly when used much in reading. writing and fine work
. 1 properly litted glass will make up for the deficiency in the shape of the exe, and take off the strain upon the acommonation, relieving com-
pletely the sense of fatigue pain or headache.

The sight in old age fails somewhat in acuteness, loses a great deal of its power of accommodation, but disease alone leads to blindness.
loung persons neglecting to wear glasses when necessary, become more liable to disease and blinduess in later life.

Nearly all cases of headaches come from the above-mentioned defects in the formation of the eycball, the only relief and cure is in the wearing of suitable glasses.

The shortsighted without glasses misses much to be seen in the world: spectacles add to the intellectual look of the "human face divine."

Eyes that tire casily after reading, sewing, or doing any kind of fine work, are either farsighted or astigmatic, and need the aid of glasses.

The greatest acuteness of vision exists in one small spot on the retina or nerve layer at the back of the eye, it is not larger than a pin's head: vis. ion is most perfect about the ase of fiftern.

The fineness of structure of the nerve layer of the eye (Retina) is: inconceivable: though thinner than the thinnest tissue paper, yet on that thin, delicate, natural parchment scroll are engraved chemically and indelibly millions of fizures to be accurately reproduced years after.

Butterflies, house-flies, and many insects possess several hundred seperate cyes; fish have no cyelips, and

## MARSHLANDS.

suakes but poor evesight. Snake dren are most frequently due to concharmers take advantage of this rather than the cunning of the serpent.

The appearance of large eyes, for it is only the appearance, depends up. on the length of the slit between the lids, not upon the size of the eyeball itself.

The beauty of the ere depends upon the size of the colored part of the ball. The domestic ox shows little or none of the white, hence the poetical expression "ox-eyed Juno."

The glistening, phosphoresent eye at night of cats, tigers and many other animals is due to the brilliant colors in the coat of the eye just back of the transparent Retina shining through the widely opened pupil: human eyes do not possess these colors.

As for ourselves, we may have eyes, one a blue, the other grey, brown or black; one very far-sighted; the other very short-sighted; two pupils in each eye, yet the sight good; pink eres, in other words eyes without color, eyes that can tell no difference between colors, color blind.

Fres that become inflamed from cold and exposure will he greatly relieved by bathing them with warm tea, steeped strong, allowing the tea to reach the ball of the exe. Pain over your eycbrow, particularly at nisht, indicates serious disease.

When anything gets into the eye and you can't find it, turn the upper lid and you will often find the offending particle. Inflamed eyes in chil-
stitutional weakness.

Fxcessive grief and anxiety often seriously and permanently injure the sight, fevers and exhanstive diseases weaken the power of accomodation and the eyes should not he used for reading, sewing or any kind of fine work till the general strength is fully recorered.

Broad brimmed hats furnish a grateful shade to the eyes. Dazoling. strong, bright lights weaken and exhaust the retina of the eye, the blue and green of the sky and earth are restful and grateful to the eye.

When eyes become weak and sore from close work, as reading and writing, a long walk out of doors, particularly during the summer months, inrigorate hoth the muscular and nerve layer of the eve.

When writing have light in front of you; when reading light above. back or beside you. The light strong, clear and steady; never a dim one: if the eyes are weak do not read upon railway train.

Intelligent people will not neglect their teeth, how much more important is early and careful attention to the eyes. Blindness is becoming yearly less frequent in Great Britain, with increased care and greater skill in the treatment of eye affections. The proportion of hlind persons in this l'rowince is too great considering the clime we live in.

The schools should be risited once a year bey a skilled oculist.
J. R. Mclans.

## For Marshands.

## Life on the Planet Vends.

It is the opinion of a noted astromomer, given as the result of close observation, that certain conditions exist on the planet Y enus, much as they do on this earth. For instance, there are vapors, clouds and air, and probably a ree of people not unlike ourselves. There is however this difference, Yenus does not rotate on its axis once in the twenty-four hours as our carth does,-in fact it has no axis, or having one has laid it aside as not a necessary adjunct to a well equipped planet.

Instead of keeping an axis on hand to rotate around as all well regulated planets do, it goes sailing steadily around the sun keeping the same side always to that luminary. Thus while one side of Tenus is one long continued and uninterrupted blaze of light, its reverse side is in total darkness cimerian untelieved. Under these circumstances there can be no division of time, such as we have here. There are no days, no weeks, no months, no years, no cycles, no centuries, no Sundays, no last week, no happy new year, no seasons of the year, no yesterday, no to-morrow, no anniversaries, no claiming dates ahead by circus troups or popular lectures. no hirthdays illumines their calendar, no setting the wedding day, no waiting the night to come, no hoping that the day would dawn, no notes at sisty days, no notice that your month is up, no leasing for a term of years. Love lorn swains have to apportion the age of their in-
amoratas, unless the women of Venus have horns, on which are wrinkles and even then who can te!l that they have not been sandpapered.

Methodists, if they exist in that far away planct. would have difficulty in enforcing the three years circuit. Ten dollars or ninety days has no terrors to the impecunious law breakers, and the difficulty of meting out a term of confinement to either cranks or offenders is obvious.
Thousands of people never saw darkness, and the query "were you ever in the dark ?" is as common on Venns as "were you ever in Europe?" is with dwellers in America.
The region of everlasting and Esyptian darkness is the hobgoblin land of nursery maids, and to be sentenced there for life carries terrors that death itself does not possess.

Scientists in the world of Yenus do not waste time in endeavoring to discover the foles of their planet. but to elucidate the hidden things in "IDarkest 「emus" is their greatest ambition.

Brigands infest the edge of that dark hemisphere make "Venetian" raids, returning with the booty to their sumless strong holds. Fugitives from justice find there a city of refuge, and the dark, dark, caverns of that benighted world is the abode of a sightless brood of ghoulish reptiles that wind among the sickly vegetation.

Far distant trom that border land hetween eterual day and endless night, the inhabitants make up pienic parties and special excursion trains carry them to the edge of darkness-that nebulous land when day ceases and
night begins, and as they enjoy its sombre novelty, some of the bolder spirits make short trips into the darkness, while their friends' hilarity is hushed until their safe return is heralded, and as a grand finale the train is backed uatil it is entirely enveloped in darkness, when they sit in solemn silence until they again emerge gloriously into the light.

How do they gatge the time? Well. my son, in that far away world there grows a tree called the "「empus Tree" whose bloom appears with geometrical precision at stated intervals of time. Its fragrance and exquisite aroma permeate the entire world of Yenus, thus marking an epoch of time. As these periods begin or terminate, servitude ends, shackles fall off, prison doors are opened, promises are fulfilled, men freed from durance vile sniff the air with frenzied eagerness and ery aloud in joyful tones, "'Tempus! Tempus!" Its aroma is disenfecting, exhilarating. rejuvenating, and thus the great world of C enus is sweetened and refreshed as it by a breath from the gods

How old is such a one? Three hundred blooms of the Tempus.

On what do I base my calculations? Well, my son, I knew it all along, but I did not want to snatch the laurel wreath, the Tempus bloom, from the brows of the other astronomers, so I said not a word about it, and unless you approve, you need not repeat it.

D. MCDearmid.

Did you see our ship railway flying of in the high wind we had the other day ? We have been shedding tears over orr defeat ever since. Can't you see how damp this page is.

## Temperance.

On this exceedingly important matter of Prohibition, why is it that our representatives at Ottawa play the hypocrite, shuffer and dough face? Five-sixths of our people are in favor of a national prohibition liquor law, forbidding its manufacture or importation. Either do one of two things, if it is no injury or sin to tax liquors. it can be no sin to sell:them, then give us an honest licence to seli openly and squarely. If it is a sin or public injury to retail liquor over the bar, then instantly stop taking a revenue from it, and prohibit its importation and manufacture as a beverage. There has been too much bigotry: too much "barking up the wrong tree," and it is time the honest, sober sense of the Canadian nation took a hold of this matter, and not leare it to the greed of the seller, nor to the mercies of some blatherskite of a temperance lawdoctor.

Cease taking the liquor dealers money or give him an honest license to sell under a few wholesome restrictions ; if great enough, arise to the time and occasion, and prohibit its public use forever.

As a people are we honest, fair, manly in the way we have been treating this matter of national concern? If this is a Christian nation, then we need a few Mohammedon missimaries on this subject of temperance, as the Khoran utterly prohibits it in any form or quanty, indeed, going so far as to say a single drop of wine dropped into a deep well of pure water.
and a single drop of that well of water af ter this will destroy your soul forever.

One thing all honest, intelligent temperance poople have had to deal with, so many of the their leaders were rotten hearted who used the canse for what it was worth to them.

The sehemers who would sooner "live a lie'than work, work no benefit to a cause real and dear to others.

In the town of Amherst, we were practically forced, by the "big uns" to meet in a small, dirty, little room over a harness shop, and packed togeth er, some 30 or to of us, like a box of sardints, more than one good member retired from such an abode of temperance; a room only fit for a low class groggery. The owner was"a temperance man you know, 'and it wouldn't do to go anywhere else. Rent with a big R-, such things attract, what kind of things?

## Politieal \& Personal Polities.

Dickey from Cumberland, we are very glad to see is holding his own at ()ttawa.

Sir Charles Tupper lost the Ship Railway for Cumbe-land. Some of our business men should have made up a delecration and gone to Ottawa to assist Sir Charles, a little more and he would have gained it for us. Well! perhaps we don't deserve it, we certainly cail blame our own short sight ed selfishness and apathy:

A solid delegation of business men from the llaritimes, could have, we believe, saved the Ship Railway bill.

Oh!my countrymen, when will you realize more keenly the value of time as well as the value of more energy in everything we do politically and otherwise.

Molsaac, as we expected he would do, is with the government on the Remedial lsill, he is an honest, manly fellow anyway.

We have not heard big I. C. make any exhaustive speech on the school gucstion as yet.

The general political business of the country has greatly suffered while this school question, which is in reality only "a tempest in a tea pot." has taken the entire attention of the house for weeks. The government evidently think they have a corner on Manitoba.

New York has just locked into her Constitution an organized law of the State, forever freeing her State schools from the influence or control of any form of religion. As far as we can find out, some if states have declared the same thing.
"AFTER THE ball, is over."
The Remedial Bill may be forced through parliament, but Manitoba and the thinking part of the population of the rest of the Dominion will have to be consulted before there will be any going back in the matter of public education at this late date of the igth century. If Premier Greenway has the nerve and the prairie prov ince desires to keep abreast of the times Manitoba will only reccgni\%e free, public, unsectarian scbools.

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Can't Canada afford to treble the sum she spends on schools? The schools to-day though infinitely better than in our day yet can be improved upon, particularly our country schools. Our teachers, more particularly the women teachers are not paid $6-$ nough. We can grant away millions of our fertile lands to a railway corporation, why can't we rescrve a few of these acres as a permanent school fund, as so many of the American States are doing. Our neighbors are very jualous and very liberal about their schools and teachers; knowing that to retain freedom and prosperity you must have an intelligent and educated people.

It is to our politictans we must look to pass such laws as will give our schools greater facilities and means of keeping pace with the times, we looked to the church for generations. we now look to the statesmen and politicians.
Sir Hibbert Tupper has a terrible tongue in his head, if his intellect equals it, we will soon expect to see him at the head of the British Empire.

Laurier is easily master of the Honse as to eloquence. He certainly is impressing his personality upon the people of this Dominion in quite a remarkable manner.

Dalton MaCarthy is placing his mark upon things, poltical things, and proing himself a vary able, independent politician.
I)r. Weldon is appar ntly more
directly interesting himself in the details as well as the "glittering generalities" of politics, indeed the past few weeks have brought out the fact that the present House has a lot of very capable men. indeed many very able men.
Sir Chas. still shows that wonderful executive ability we always dwelled so much upon. Things were slow indeed, a sort of stagnation had come over political life at Ottawa when the veteran'war horse, sniffeth the hat tle from afar, "and behold, the apathy. disappeared. the political menagerie be came immediately restless, then wild then savage, while he sweeping down with the air of a born conqueror stirred Nora Scotia from centre to circumference.

Returnins: to Ottawa victorious, he immediately grasped for the sceptre : brought the House face to face to that stinging political question relative to the Manitoha schools, in all showing the man that can do as well as talk.

## Echoes From the Ram's Horn

Turn a thinker loose and you shake the world.-Ram's Hom.

That is, if he can get it by the neek.
A golden opportunity never knocks at the same door twice.-Ram's Horn.

Nonsence! It is always hnocking at our doors: the trouble is we are "too deaf to hear my dear."
If you want a friend be a friend. Ram's Horn.
In other words, consult anothers
self interest, if you would secure your own.
liriends are not always the best thing either to have, or want.

The word friend has an extremely elastic meaning.

The epiorams in the Ram's Horn are "catchy" so catchy, sometimes you catch your breath "in the reading. of them."

This world is a bad world only for those who have bad hearts.- Ram's Horn.

Very close to the truth this time. The love that never speaks until it does on a gravestone, keeps still too long.-Ram's Horn.

Of all home destroyers and heartbrakers the drunkard waves the palm.-Ram's Horn.

Too many people make the mistake of belonging to Church, without belonging to Christ. - Ram's Horn.

The richest man is the one who can give away the most and regret it the least.-Ram's Horn.

Mr. Wr. Roberts says that of the 13 oo books published before the beginning of the sixteenth century"not more than 300 are of any importance to the book collector." Of the 50,000 of the 17 th century not more than 50 are held in any estimation, while for the isth century of 80,000 not more than $3^{00}$ are considered worth reprinting, and not more than soo are sought after.-Ram's Horn. So, little Marshlands need not feel unhappyas yet.

## ~~~~~~~~~~~~~~ <br> Pen Points.

We feel convinced we credit men as cranks or even criminals, when in reality they should be recognized as
suffering some injury to the nervous system, or the brain itself is more or less diseased.

We onte asked a Superintendent of an insane asylum, how it was we had noted so many of the immates were insanc on religion, while ws saw no infilels among them? He promptly replied, "yon will find the infidels in the penitentiary."

A witty but rather dissipated ['. S. senator, a lawer by profession was once asked by a number of his friends and fellow citizens for a moto they wished to place upon a marible slab. just above the Judges chair, in a new court house just being finished. Looking up at the plain stone for a moment, he turned to the crowd about him and uttered the three cabalistic letters J. I). L'., puraled they request ed him to tell them what the letters meant, he replied in deep.solemn, tones "Justice Dammed lincertain.

If it was not for some of us who are not inclined to be too grood, why we would become aworld of such seriousness that all would become priests, clergymen, evangelists, etc, till there would be none left to plow the fields, dig the mines, sail ships, bake the bread. much less be soldiers to protect our common conntry If we all became christians, real ones, we would have no use for the clergy, no fear of the devil, no weeping over the departed. we really would not be inclined to do anything except wish for the end of earthly existence, if we were real con sistent bits of humanity.

Free National Schoöls.
A bout the only belief that has driven itself clean through our thinker and is now clinched, riveted on the other side, is the belief in free undenominational schools. We have secn the education of the masses left to the church, to charity, and to church, charity and with a little state aid thrown in. Out of this "hodge podge" what have we? look you around! just about what you might expect from any kind of half-hearted work, a crude, unfinished product, as some other has put it, "A little knowledge is a dangerous thing, " it was very litthe hence the danger has proved slight. Now we shall no longer stop our demands at our A BC's not even at the study of the three R's but from this out shall insist that every son of the soil shall have a full collegiate course with a scientific one thrown in, and yet more, all that shall at all deserve it shall receive the highest University education tinis country can give.
What lif comparatively poor countries can afford to make every cition serve a term of three years or more in the army, that they may become eflective instruments of destruction, in many cases only legalized murdercrs can we not allow our sons of Canadian soil three years to receive the best education we can give him, paying school teachers, instead of sergeants, training our intellects for the real struggle in life, instead of training up soldiers, at an enormous expense, who, often never see a battle in a loug life-time. Can education, a
high education, make a man less a man religionsly? A monstrous argument, if religion is true; while if not true, 'tis well indeed we should know it. If it is good for a clergyman, a doctor or a lawyer, or a gentleman of any kind to receive a college education, think you, it can do harm to the masses? As a nation we can spend millions on railways, drink up more millions, and still possess vast national wealth. We are abundantly able to give every young person in this whole broad Dominion a thorough collegiate training and be the greater. wealthicr and wiser for it. Such an army would be onc to create, build, accumulate ; while an army for war is created to destros, degrade, impoverish and brutalize.

Let ocr army be a host of intelligent, highly trained scholars, this Canadian army then would indeed be a spectacle for "ye gods and men."

By jingo if you do.
We've got the country, got the brains.
And got the money too.
"JET THi:RE BE LIGHT."
The Earth.
The British Empire still has that chip, lightly poised upon her shoulder and more, she has thrown her soldiers into the Soudan, Africa, the Dervishes will now dance in real earnest.
It is settling down to the shape of Germany, Austria, Italy: and England; France and Russia on the other side. Let us count a moment the respective strength of these two proba-

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ble combines, in case of a Fraropean war, The population of the German Empire about $50,000,000$, Iustria $\downarrow 0$, 000.000 , Italy $30,000,000$. (i. B. 40 , 000,000 , total $160,000,000$. Russia 120,000,000, France . $0.000,000$. total foo,ouo,000. So far as population goes t?ey stand about equal. France has about $\&$ millions of men that can be used for war. Russia is indefinite, has about $2,000,000$ she could possibly raise $6,000,000$ if the last reserves were called upon, but probably 3,000 , ooo would the her limit. Russia and France could put in the field well equipped for their work not more than $5,000.000$ of men. Germany can put into the field $3,000,000$ perfectly equipped in every way, as for intelligence and physical strength away and above their opponents. and this counts heavily in modern wars. Austria, Fungary quite 2,000,000. Italy, about 2.000,000 Austria and Italy could put at least a million more so that these three nations alone could bring fully $8.000,000$ of trained men into the field. England could put 500,000 , at different positions, in French possessions and Russia in Asia While the navy of England, alone could sweep the seas ; combined with the German, Austrian and Italian' navies, they could in two years destroy all the foreign commerce of both Russia and France. In case of such a war the Japanese people would find their opportunity of repaying Russia for her present hostile attitude. England through her Indian army would shove Russia back on herself in Asia, her
navy would rob France of Siam, Algeria and her African territory and make the Mecliterranean Sea an English Lake.

And if the wat shunld last 5 years while France had exhansted her supply of men for fighting, England would have had the time to train millions of men and to have built a dozen feets till ; angered and strengthened, the only fear would be, she would become more grasping and want the earth—or at least that part France and Russia owned.

What are dreams to such nations as Italy and Spain become actualities with the energetic practical Anglo Saxon. What nation that has not dreamed of Eniversal Empire or at least the greatest of Empires?. The Anglo Saxon not only dreamed it but set about it, till today even his dreams are dimmed and dwarfed by what he sees around hini.

The world has suddenly awakened but too late to find ther has grown with an amazing rapidity, a miglity Empire, and though each and all would pull her to pieçes.now find that the people who have made this Empire, are thoroughly capable not only to defend it but crush those who felt so sure of hewing down her dimensions.

We do not for a moment think it possible to have a homogenous British Empire, though retaining a great Empire, yet with such of her colonies as Canada and Australia her mission we feel will have proved to be that of a mother tosuch as the U.S., Dom.ofし.
and Australia, though separating from tine common motherland and becoming great, powerful, prosperous nations, yet we can easily understand an alliance that will preserve our race, traditions and -sentiments against all outside clashing interests of the rest of mankind. is for us, long live Canada.

After many years study and thought abont it, we have become fixed in our determination that Conada will prove herself, a child of the sod, and will revere that sod. The French boy and the English boy will grow up to be men and find that his neighbour is his friend, belonging to a common country, accustomed to the same climate, accustomed to many conditions the same to both, till in time both will feel it is their own coun try, as the race will in time naturally and gradually grow together, we will have a homogenous people: the sooner we have a national flag floating to Canadian breezes, the sooner we will become one pcople, The New Canadian Aation.

## The New Learment.

The handsome cut of the Leament Hotel on our first page is a faithful engraving of this superb new hotel, now in regular rumning order. This very elegant, large s.nd finely fitted up hotel is a credit to the proprietor Mr. Learment as well as an ornament to the handsome growing town of Truro and plainly shows his complete faith in the town's future, for this if
for nothing else he should have the good will and best wishes of his fellow citizens. But apart from this, as a landlord, as a citizen, and as a man he enjoys the respect and esteem of his townfolk. IImself as host and is good wife as hostess both posses the kindly regard and to a remarkable degree the patronage of the great travelling public. We wish them the suceas they deserve so well to have.

## Revieras in Little.

Goney's, -- March. Life of Cecil Rhodes.-"The surprising growth of British South Africa is largely due to the efforts of one man, Cecil Rhodes, the organizer and manager of the Imperial British South African Company. The son of an English clergyman without money, he has amassed a fortune of $£, 10,000,000$ or more, has served as Prime Arinister of Cape Colony, and has been honored for his success by the title of Privy Councillor to the Queen.

When it is considered that Cecil Rhodes is only forty-two years old, unmarried, and handsome. his charracter becomes as romantic as that of a hero of chivalry. Is it any wonder that besides being knighted by his Queen, he has recaived the further distinction of appearing under a thin disguise as the hero of a society novel?
"Tell him," says. the German baron, "that I longed to see him, as a man who is dying longs for his son. Ife would be a breath of life to me in this room where eversthing seems
dead. He is full of life-full as a tiger."

He was born at Bishop's Stortford, a town about twenty-five miles north of Lunclon, on July 5, 1853 . His father, the Rev. Francis William Rhodes, Vicar of Bishop's Stortford, had seven sons and two daughters.

Herbert Rhodes and his brother were among the first on the ficld, and they brought with them every Kaffir who could be spared from the plantation, to stake off claims and hold them. That day's work made their fortunes. As soon as order was obtained and mining began in carnest. Cecil returned to England to take a course at Oxford; but, his health again failing, he returned to Kimberly, where he continued studying to such good purpose that when next he visited England he was able to pass his examinations and obtain his degree.

It was at this period of his life that the young "diamond king," as he was popularly called, filled a pail full of diamonds and had his photograph taken while he slowly poured out the bucketful of glittering gems.
: Ar. Rhodes did for the diamond industry what John D. Rockefeller did for the petroleum industry of this country-he consolidated it.

No other man than Cecil Rhodes could have carried the plan through. He had both money and an intimate knowledge of the regions in question. Better than that, he had the rare gift of inspiring confidence It was at this time that he presented to the Parnell Parliamentary Fund the tidy
sum of fio,000, but his friends deny that he did it for the purpose of securing the Radical support.

Mr. Rhodes got his royal charter on October 29, 18S9, and forthwith returned to Africa to carry on the work of settling the new lands, which comprised a tract as large as all Europe.

From the day that Cecil Rhones obtained his royal charter, he was the most popular man in Cape Colons. In i89o he was made premier of the Colony, an office from which he has just resigned at the piesent writing. At the beginning of last year he was made a member of Queen Victoria's Privy Council, a purely honorary position, to be sure, but coveted by the noblest in the realm. All the latest maps of South Africa bear the name Rhodesia across the areas formerly labelled Mashonaland and Matabeleland. in honor of its settler.

A man over six feet tall, of fine figure and muscular in appearance. Always unaffected and unpretending, he is one of the kindest of men. He talks plainly and to the point. He is no orator. His most striking peculiarity is a tendency to absentmindedness."

McCrures, April. The New Marre! in Photography. By H. J. Dam:In all the history of scientific discovary there has never been, perhaps, so general, rapid, and dramatic an effect wrought on the scientific centres of Europe as has followed in the past few weeks, uron an announcement made to the Wurzburg Physico-Medical Society, at their December mecting, by

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Professor William Konrad Rontgen, professor of physics at the Royal University of Wurzburg. Then Rontgen's own report arrived, so cool, so business-like, and so truly scientific in character, that it left no doubt either of the truth or of the great importance of the preceding reports.

The Rontgen rays are certain invisible rays resembling, in many tespects, rays of light, which are set free when a high pressure electric current is discharged through a vacum tube. A vacum tube is a glass tube from which all the air, down to one-millionth of an atmosphere, has been exhausted after the insertion of a platinum wire in either end of the tube for connection with the two poles of a battery or induction coil. When the discharge is sent through the tube, there proceeds from the anode-that is, the wire which is connected with the positive pole of the battery-certain bands of light, varying in color with the color of the glass. But these are insignificant in comparison with the brilliant glow which shoots from the cathode, or negative wire. This glow excites brilliant phosphorescence in glass and many substances, and these "cathode rays," as they are called, were observed and studied by Hertz; and more deeply by his assistant, Profossor I,enard, I, enard having, in 1894, reported that the cathode rays would penetrate thin films of aluminum, wood, and other substances, and produce photographic results beyond. It was left, however, for Professor Rontgen that during the discharge another
kind of rays are set free, which differ greatly from those described by Lenard as cathode rays. The most marked difference between the two is the fact that Rontgen rays are not deflected by a magnet. indicating a very essential difference, while thefr range and penetrative power are incomparably gicater. In fact, all those qualities which have lent a sensational character to the discovery of Rontgen's rays were mainly absent from these of Lenard, to the end that, although Rontgen has not been working in an entirely new field, he has by common accord been freely granted all the honors of a great discovery.
Among the other kinds of matter which these rays penetrate with ease is the human flesh. That a new photography has suddenly arisen which can photograph the bones, and, before long, the organs of the human body ; that a light has been found which can penetrate, so as to make a photographic record, through everything from a purse or a pocket to the walls of a room or a house, is news which cannot fail to startle everybody. That the eye of the physician or surgeon, long baffed by the skin, and vainly seeking to penetrate the unfortunate darkness of the human body, is now to be supplemented by a camera,making all the parts of the human body as visible, in a way, as the exterior, appears certainly to be a greater blessing to humanity than even the Listerian antiseptic system of surgery : and its benefits must inevitably be greater than those conferred by Lister, great
as the latter have been. Already; in the few weeks since Rontgen's announcement, the results of surgical operations under the new system are growing volmminous. In Berlin, not only new bone fractures are being immediately photographed, but joined fractures, as well, in order to examine the results of recent surgical work. In Vienna, imbedded bullets are being photographed, instead of being probed for, and extracted with comparative ease. In London, a wounded sailor, completely paralyed, whose injury was a mystery, has been saved bey the photographing of an object imbedded in the spine, which upon extraction, proved to be a small knife-blade. Operations for malformations, hitherto obscure, but now clearly revealed by the new photography, are already becommg common, and are being reported from all directions. Professor Czermark of (iray has photographed the living skull, denuded of flesh and harr, and has begun the adaptation of the new photography to brain study.
Professor Neusses in Vienna has photographed gall-stones in the liver of one patient (the stone showing snow white in the negative,) and a stone in tho bladder of another patient. His results so far induce him to announce that all the organs of the human body' can, and will shortly; be photographed. Lannelongue of Paris has exhibited to the Academy of Science photographs of bones showing inherited tuberculosis which had not otherwise revealed itself.

In the great march of science it is
the genius of man, and not the perfection of appliances, that breaks new ground in the great territory of the maknown.
"Is it light ?"
"No."
"Is it electricity ?"
"Not in any known form."
"What is it ?"
"I don't know."
And the discoverer of the X rays thus stated as calmly his ignorance of their essence as has everybody else who has, written on the phenomena thus far.

A photograph of a compass showed the needle and dial taken through the closed brass cover. The marking of the dial were in red metallic paint, and thus interfered with the rays, and were reproduced. "Since the rays had this great penetrati:es power, it seemed natural that thes should penetrate flesh, and so it proved in photographing the hand, as I showed you."

A detailed discussion of the characteristics of his rays the professor considered unproftable and unnecessary. He believes though, that these mysterious radiations are not light. because their behaviour is essentially different from that of light rays, even those light rays which are themselves invisible. The Rontgen rays cannot be reflected by reflecting surfaces, concentrated by lenses, or refracted or diffracted.

The professor's exposures were comparatively long-an average of fifteen minutes in easily penetrable media, and half an hour or more in photographing the bones of the hand.

In answer to a question, "What of the future ?" he said :
"I am not a prophet, and I am opposed to prophesying. I am pursuing my investigations, and as fast as my results are verified I shall make them public.' ${ }^{\prime}$
Returning by way of Berlin, I called mpon Herr Spies of the Urania, whose photographs after the Rontgen methoc' were the first made public, and have been the best seent thus far. The Urania is a peculiar institution, and one which it seems might be profitably duplicated in other countries. It is a scientific theatre. By means of the lantern and an admirable equipment of scientific appliances, all new discuveries, as well as ordinary interesting and picturesque phenomena, when new discoveries are lacking, are described and illustrated daily to the public, who pay for seats as in an ordinary theatre, and keep the Urania profitably filled all the year round. Professor Spies is a young man of great $m \in$ ntal aleitness and mechanical resource. It is the photograph of a hand, his wife's hand, which illustrates, perhaps better than any other illustration in this article, the clear delineation of the bones which can be obtained by the Rontgen rays. In speaking of the discovery he said :
"I applied it, as soon as the penetration of flesh was apparent, to the photograph of a man's hand. Something in it had pained him for years, and the photograph at once exhibited a small foreign object, as you can see ;" and he exhibited a copy of the photograph in question. "The
speck there is a small piece of glass, which was immandely extacted, and which, in all probability, would have otherwise remained in the man's hand to the end of his days." All of which indicates that the needle which has pursued its travels in so many persons, through so many years, will be suppressed by the camera.
Diagnosis, long a painfully uncertain science, has received an unexpected and wonderful assistant ; and how greatly the world will benefit thereby, how much pain will be saved, and how many lives saved, the future can only determine."
Some extracts from The Rontgen Rays in America. By Cleveland Moffett:-"At the top of the great Sloane laboratory of Yale University, is an experimental room lined with curious apparatus, I found Professor Arthur W. Wright experimenting with the wonderful Rontgen rays.
His best results have been obtained with long exposures-an hour or an hour and a half-and he regards it as of the first importance that the objects through which the Rontgen rays are to be projected be placed as near as possible to the sensitized plate.

A rabbit laid upon the ebonite plate, and so successfully pierced with the Rontgen rays that not only the bones of the body show plainly, but also the six grains of shot with which the animal was killed. The bones of the fore legs show with beautiful distinctness inside the shadowy flesh, while a closer inspection makes visible the ribs, the cartilages of the ear, and a lighter region in the centre of the
body, which marks the location of the heart.

Dr. Roblb has discovered that in order to get the best results with shadow pictures it is necessary to use special developers for the plates, and a different process in the dark-room from the one known to ordinary photographers.
Dr. Roblb finds that there is a constant tendency to shorten the time of exposure. and with good results. For instance, one of the best shadow pictures he had taken was a box of instruments covered by two thicknesses of leather, two thicknesses of velvet, and two thicknesses of wood; and yet the time of exposure, owing to an accident to the coil. was only five minutes.
I also visited Professor U. I. Pupin of Columbia College, who has been making numerous experiments with the Rontgen rays, and has produced at least one very remarkable shadowy picture. This is of the hand of a gentheman resident in New lork, who, while on a hunting trip in England a few months ago, was so unfortunate as to discharge his gum into his right hand, no less than forty shot lodging in the palm and fingers. The hand has since healed completely : but the shot remain in it. the doctors being umable to remove them, because unable to derermine theirexact location. The result is that the hand is almost useless and often painful.

Hearing of this case, Professor Pupin induced the gentleman to allow him to attempt a photograph of the hand. He used a Crookes tube. The distance
from the tube to the plate was only five inches, and the hand lay between. After waiting fifty minutes the plate was examined. Not only did every bone of the hand show with beautiful distinctness, but each one of the forty shot was to be seen almost as plainly as if it lay there on the table; and, most remarkable of all, a number of shot were seen through the bones of the fingers, showing that the bones were transparent to the lead.

Thomas A. Edison has also been devoting himself, with his usual energy, to experiments with the Rontgen rays, and announces confidently that in the near future he will be able to photograph the human brain, through the heary bones of the skull, and perhaps even to get a shadow picture showing the human skeleton through the tissues of the body."

Gones's-April. The evolution of a sport. "As far back as 1642 some one certainly had the germ in his brain, for in the stained glass window of an old English church, constructed during that year, there is an idealized figure of an unclothed humau astride a freakishlooking two-wheeled affair. Thereafter until $1 \$_{35}$, when a:Scotchman, Gavin Dalziel. devised a twowheeled machine, in which the propelling power was secured by connecting the cranks and the rear hub) with a driving rod, there recurred periodically "dandy horses," "pedestrian curricules, " and other velocipedes, on which the rider propelled himself by forcing his feet against the ground. Dalziel's invention was, however, the
first distinct advance.
In IS6s Pierre Lallemont, a Frenchman, exhibited a bicycle with the cranks and pedals attached to the front wheel, which was also the larger of the two. Previous to that time, the front wheel had always been the smaller. Lallemont's invention was the forerunner of the "ordinary" or high bicycle, which was so familiar and in such general use twenty years later. In 1868 the rubber tire was introduced, and other improvements followed in time. It was not until 1876. however, that a bicycle, in the general acceptance of the term, was seen in America, and not until the following year that an American. A 1): Chandler, of Boston, was in actual possession of one.

The Englishmen were quicker to realize the advantages of the wheel, and for a time all bicyoles used in America were of English make. In IS7S, however, a sewing machine company in Fartford, Conn., undertook their manufacture, on a small scale, of course. That it was not a grold mine may be imagined from the fact that one year later the sales of bicycles in this country had reached a total of exactly ninety-two. In November, 1879 , there were, by actual census, easily taken, just thirty-five wheels in New lork City.

Even as late as $18 S_{3}$ three wheelmen were arrested for daring to ride in Central Park, in New Vork City

Entil xSS6 the high wheel was in general use. The previcus year-recall Dalziel's invention and note how history repeats itself-a low-built
bicycle, driven by chain-power, had made its appearance in England, and naturally found its way to this country. It met with immediate disfavor and when, in ISS7, a woman's bicycle was invented by a Washingtonian, the roar that went up-the suggestion of immodesty which it conveyed proved such a shock to the public that it was years before it recovered. But it did recover, as all the world now knows.

The pnemmatic tire-invented by a veterinary surgeon, J. B. Dunlop, of Belfast, Ireland-came out in ISS9, and completed the "death" of the "orlinary," althoug $l_{i}$, as a matter of fact, it was not until 1863 that the air tire was fully understood and was in general use.

It was not, however, until the pnemmatic tire became known that cycling can be said to have had a really permanent foundation, and to no other invention is due the present happy condition of things. The new tire wrought a great change in the constructlon of bicycles. reducing their average weight. Witness that it has reduced the mile record from 2:22,3-5 to $1: \not, 0,3-5$. Set how few know how much of this is due to the insistence of an eight-year-old boy, Inventor Dunlop's son?
"In iSS5." says he, "I bourght a tricycle for my only son, John, who was then eight years of age. For a few yoars previous to that I had been thinking of spring wheels, with the object of reducing vibration, and rendering the propulsion of velicles comparatively easy.
"John often complained of the 'roughness' or 'shaking,' he experieneed on his tricycle, especially over sets. I understood that spring steel was not reliable in spokes or rims of spring wheels, sud I knew that there was a loss of power in heary rubber tires. I formed the opinion that compressed air containced in a thin, strong, flexible. mon-expansible jacket or tube, and applied to the outside of a wheel, would be the best means for increasing speed and reducing vibration of cycles, etc. I told John that I coukd make the fastest and easiest running machine that had ever been made.
"I was exceedingly busy in the practice of my profession, but Join often urged me to have a machine or wheels made according to my ideas. I was anxious to gratify his ardent wishes; besides, 1 had an ambition to.
-The rims and tires were then suspended round the driving-wheels of the trieycle by means of wires. I did not use an air-tire in the front wheel, because the forks were too narrow. and I had no means of altering them.
"It would take too long a time to describe how these tires were the sub)ject of ridicule and laughter. How. ever, they realized our expectations, and I resolved to have a better tricycle fitted with air-tires.

Thereafter young and old, high and low, male and female caught the infection, until to-day the man or woman who would deride the bicycle would be at once, and rightly, set down as a dyspeptic crank.

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