

### DEVELOPMENT OF X-RAYS.

#### DISEASE CAN BE DISCOVERED BEFORE SYMPTOMS DEVELOP.

Are Invaluable to Surgery—With New Apparatus Physicians Are Now Able to Reveal the Condition of Any Organ.

Although five years' work by the scientists has not given to the world any more definite knowledge of the actual character of the X rays than was disclosed by Professor Roentgen when he announced their discovery, remarkable and interesting advances have been made in their use and in the apparatus for producing and utilizing them.

As adjuncts to the work of physician and surgeon, the Roentgen rays have found their most valuable uses, and it is now possible to make examinations which for the definite character of their disclosures are of the highest value, not only for the detection of bone fractures and the location of foreign substances within the body, but even the discovery of lesions or changes in the softer portions of the body which indicate or accompany disease.

With the later forms of vacuum tubes good pictures can be obtained of the thickest portions of the body with an exposure of but a few minutes, where only a year or two ago such pictures were impossible, and the making of much less difficult exposures was a matter of many minutes, and often resulted in serious injuries through burns.

By the older apparatus it was only possible at the best to get the location of troubles

#### IN ONE DIRECTION

while now there are several designs of apparatus by which pictures are made simultaneously from two points of view so that an injury or a foreign substance imbedded in the flesh can be located accurately through the range lines of the pictures.

Dr. G. P. Girard, of McGill University, Montreal, has accomplished a like result by another ingenious device. His apparatus takes two X ray pictures at once from two points of view two and a half inches apart, the result being stereoscopic radiographs, which are very effective in giving the modelled form of all the parts beneath the skin when viewed through the proper lenses. When radiography was first undertaken it seemed as if distinct pictures of any portions of hidden anatomy except the bones and perhaps a few of the other finer parts, but this difficulty has been overcome.

It has been found that almost every organ or kind of tissue in the body has its own distinctive effect upon the X rays, and that these can be caught by the skillful operator in picture form. The various calculi of bladder, gall or kidney can be located with certainty; an X ray picture will show a cavity in a lung, disclose the presence of a space filled with liquid instead of tissue or clearly indicate an adhesion.

Careful observers assert that they can accomplish even more than this. A study of the radiograph, they say, will enable the skillful man to detect the existence of certain diseases, even before their symptoms have made themselves manifest to either patient or physician.

#### ITS MOTIVE POWER.

Many are the stories which the London caddy and busman have to tell at the expense of the motor man, but this has the additional charm of not having previously found its way into print.

While on the top of an omnibus recently, the writer noticed a disabled motor van, which several men were trying to coax into motion.

A discussion arose amongst the passengers as to what the propelling power of the disabled vehicle was.

Electricity, suggested one.

Oh, no, retorted another. I should say it was oil.

Or gas? queried another.

Wrong, all of ye, chimed in the driver. Why, it's plain as day—light as any sensible person.

What is it, then? inquired a chorus of voices.

Why, retorted the Jehu with a contemptuous sneer, it goes by "pushin' and shovin'," and so on.

#### CYCLE OF EPIC TRAGEDIES.

Little boy  
Cherry-stones;  
Notion-oil.  
Awful moans

Little girl.  
Box of paints;  
Sucks her breast.  
Joins the saints.

Bigger boy.  
Sea-gull's nest;  
Crumbing rocks.  
Eternal rest.

Bigger girl.  
Healthy bloom.  
Waist too tight.  
Early tomb.

#### ACCEPTED.

Mr. Faintart—Miss Upperton, I feel that I am overpresumptuous; that you are not for me; that you will refuse my hand; nevertheless I offer it to you, in order to satisfy in a measure—

Miss Upperton, faintly—April fool!

That the English are the nation fondest of adventure, or most careless, is proved by topping the list in accidental deaths. Six hundred and seventy out of every million Britons die by accidents. Of these, 130 are drowned, 60 burnt, 8 are shot, and 6 are poisoned.

### ON THE FARM.

#### RAISING CALVES IN ENGLAND.

A method of raising calves, as practiced at the County Council School in Newton Rigo, was given by the principal of the school to the Northumberland Dairy Farmer's Society in England at a recent meeting. The calf was taken away from the cow as soon as born, rubbed dry with straw and well bedded and covered with more straw, and then about half an hour afterward was fed about a pint of the mother's milk blood warm. Afterward the feeding was as follows:

First week—Its own mother's milk warm three times a day, commencing with about a pint and a half at a time, and increasing to two quarts on the fourth day.

Second week—Two quarts of warm milk, not necessarily its own mother's, three times a day.

Third week—Two quarts of warm milk, half new and half skim or separated, three times a day, with a half pint of linseed soup to each quart of skim milk.

Fourth week—Same as third, with handful of sweet meadow hay to nibble at.

Fifth week—Two and a half quarts of warm skim milk three times a day, a half pint of linseed soup to each quart, and a little sweet meadow hay after morning and evening meals, to be continued with gradually increasing quantities of hay till the end of the eighth week.

Ninth week—Omit the linseed soup, and after the midday milk, give a single handful of broken linseed cake, and a little pulped swedes; grass instead of swedes in summer, hay as before.

Twelfth week—Omit midday milk, and give three-fourths' pound of mixed linseed cake and crushed oats, and half a gallon of pulped swedes—grass in summer—at midday, continuing morning and evening skim milk and hay as before.

If necessary milk may be entirely discontinued at five months old, and one pound of mixed linseed cake and crushed oats be given, to each calf, with increasing quantities of hay and roots, sliced or whole; but if skim milk be plentiful it cannot be put to better use than giving the calves one or two drinks of it each day up to the age of eight or nine months.

To prepare linseed soup, put two

### BACK TO HEALTH.

#### THROUGH THE KINDNESS AND PERSISTENCE OF A FRIEND.

An Every-Day Story That Will Bring Health and Happiness to Young Girls Who Act Upon the Advice Given.

From the Sun, Orangeville, Ont.

In every part of Canada are to be found grateful people who cheerfully acknowledge that the good health they enjoy is due to the use of Dr. Williams' Pink Pills. In the town of Orangeville there are many such people, among them being Miss Lizzie Collins, an estimable young lady who resides with her mother in the east ward. Miss Collins' cure through the use of this medicine was recently brought to the attention of the Sun, and a reporter was sent to get the facts from the young lady. Miss Collins cheerfully accorded the interview, and her statement is given practically in her own words: "Two years ago," said she, "I became so weak that I was forced to take to bed. The illness came on gradually. I found myself much run down, suffered from headaches, and was as pale as it was possible for a living person to be. I used several medicines, but they did not help me. I consulted a doctor, and he said that I had scarcely any blood, and that my condition was one of danger. Medicine did not seem to do me any good, and I found myself growing weaker. I reached the stage where my heart kept palpitating violently all the time. The headaches became continuous, and my condition one which words can scarcely describe. I really despaired of getting better, and loathed the sight of medicine. I had been confined to my bed about two months when one day a friend called and urged me to try Dr. Williams' Pink Pills. I told her I had lost faith in all medicines, but she was apparently determined I should try the pills, for she brought me about half a box she had been using herself. I could not then do less than try the pills, and when they were used, while I cannot say that I felt much better, I had more confidence in the pills and got half a dozen boxes. Before these were gone there was no doubt that they were rapidly restoring me to my old-time health, as I was soon able to sit up and then be around and out. I used in all eight or nine boxes, and before these were gone I felt as though I had never had an ache or pain in my life. That is what Dr. Williams' Pink Pills did for me and I think I would be very ungrateful if I did not add my testimony to the benefit it may be to some other young girl."

Miss Collins' story should bring hope to many thousands of other young girls who suffer as she did. These who are pale, lack appetite, suffer from headaches, and palpitation of the heart, dizziness, or a feeling of constant weariness, will find renewed health and strength in the use of a few boxes of Dr. Williams' Pink Pills. Sold by all dealers or sent by mail, post paid, at 50 cents a box or six boxes for \$2.50, by addressing the Dr. Williams' Medicine Co., Brockville, Ont.

#### AYRSHIRES AS MILKERS.

When quantity rather than quality of milk is the object to be aimed at it is very hard to beat an Ayrshire cow of a good milking strain. Though of comparatively small size, animals of this breed are remarkably deep milkers. Where a good price can be obtained for new milk, it is considered an unusual result, for a cow of this breed not to give milk to the value of 12s per week, or over £25 per annum. One of the great points in favor of Ayrshires is that they are comparatively hardy, and in addition to this, very thrifty cattle, and are consequently adapted to being kept on light lands which do not produce sufficiently good grass for carrying heavy stock such as Short-horns and Red Polls. Like all deep milkers, however, Ayrshires are, of course, heavy feeders, and when cows of this breed are being specially kept for milking purposes they must be fed with unstinted liberality. As it is from the food that the milk is manufactured, it follows as a matter of course, that in the absence of abundance of food good milking results cannot be looked for.

#### A BOOK FOR MOTHERS.

Containing Much Information as to the Care of Children, and the Treatment of Ills that Commonly Affect Little Ones—Given Free.

Baby's Battles; A Message for Mothers is the title of a very handsome little pamphlet just issued by the Dr. Williams' Medicine Company, and is devoted entirely to the care of infants and small children, and tells the mother how to aid her little ones in the emergencies of every day life. It describes the ill that commonly afflict children and tells how to treat them. This little book is one that should be in every home where there are infants or small children. All mothers who send their name and address on a post card to the Dr. Williams' Medicine Co., Brockville, Ont., will receive a copy of this book free of charge. Mention this paper when writing.

A brave retreat may show greater courage than a foolhardy advance.

### CEYLON AND INDIA TEA, GREEN OR BLACK.

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PURITY CLEANLINESS  
ECONOMY WHOLESOMENESS

### "SALADA"

Ceylon Teas are sold in sealed lead packets only, never in bulk. Black, Mixed or uncolored Ceylon Greens. Sample on application. Address "SALADA," Toronto.

#### BURLGARS AS PLUMBERS.

Combination of Rat-Catchers and Plumbers Rob Their Patrons.

A pair of rat-catchers who lived in a remote English town, recently managed to make a very good income in addition to the prosecution of their craft, with the aid of a plumber no less scrupulous than themselves.

These men, on being called into a house, would put poison about, with the result that the rats died underneath the floor boards of the dwelling-rooms. The result of this was that it became, of course, necessary to call in a man who was a combined plumber and joiner, the only one, moreover, in business in the township. Floor boards and hearth stones would have to be ripped up, and the dead rats and mice taken away, with the result that in addition to the rat-catcher's bill there was also one to be met from the plumber. Ultimately the true rat-catcher's bill, and the men transferred their business elsewhere.

Some years ago, a daring burglar conceived the idea of entering the rat-catching business. His enterprise was rewarded, and he was enabled to secure a great deal of booty. Besides rats, in the way of plates and valuables, and for a long time piled his trade with impunity.

But one day, on being sent for to an old country manor house, where the rats had become particularly troublesome, he was rash enough to ask for all the keys of the house, and the plate cupboard in the house, and the plate chest, "for," he explained, "rats will get anywhere."

The keys were given to him, but a watch was secretly put on his movements, with the result that he was secured red-handed in the act of pocketing the plate. He was apprehended, and it was then discovered how lucrative his "rat-catching" had been on more than one occasion.

#### STAGE DRIVER STATES HIS CASE

Experience of Both His Wife and Himself.

Each Has Tested the Power of Dodd's Kidney Pills—Each Has Achieved the Same Result—Dodd's Kidney Pills Have Cured Them Both.

Dromore, Ont., May 27.—(Special)—Mr. George Sackett, drives the stage between Dromore and Holstein. That he is known throughout the country side goes without saying. When he was in trouble a short time ago he had the sympathy therefore of more than the few immediate friends and neighbors a man in another walk would have.

Mr. Sackett thought at one time he would have to give up the stage. Sitting up on the driver's seat day in and day out, rain or shine, hot or cold he contracted a serious disorder. His kidneys became very much inflamed, and he was unable to get on his feet. He gradually gave him more and more trouble. He felt that he couldn't keep up much longer.

It is nine miles from Dromore to Holstein. That means a round trip of eighteen miles. Two rainy days would make thirty-six miles of driving. Imagine this in a wet driving season. Storm of March or February to a man in a delicate state of health.

Mr. Sackett did not give up driving the stage. Instead he sought the help of Dodd's Kidney Pills. Did he continue to lead his own life? A wife proved the truth of the saying, "Dodd's Kidney Pills are woman's best friend."

"Having used other largely advertised remedies and all the medicines recommended to me by my friends for my Kidney Trouble and excruciating Backache without the slightest relief, I was in despair. In the nick of time I was induced to try Dodd's Kidney Pills and can never be too thankful for the advice which prompted me to do so. They simply took hold of my trouble and lifted it off me. I never heard of anything which gives such instant relief."

"My wife owes even more to Dodd's Kidney Pills than I do. Her case was worse than mine. Mrs. Sackett would not be alive to-day only for Dodd's Kidney Pills. Both my wife and myself would like to recommend Dodd's Kidney Pills for they do what they are claimed to do."

#### UNFORTUNATE

Education may be a good thing, said the man with the stubby mustache, but if my parents had not instilled in my mind so great a reverence for grammar I am almost sure I could have been a poet.

London shows the record in loss of life from fires. Its death-roll from this cause being 83 per million inhabitants. Munich is at the other end of the list, with four deaths only.

Stratford, 4th Aug., 1893.

Messrs. C. C. RICHARDS & Co., Gentlemen.—My neighbor's boy, 4 years old, fell into a tub of boiling water and got scalded fearfully. A few days later his legs swelled to three times their natural size and he could get nothing to help him until I recommended MINARD'S LINIMENT, which, after using two bottles, completely cured him, and I know of several cases around here almost as remarkable, cured by the same Liniment, and I can truly say I never handled a medicine which has had as good a sale or given such universal satisfaction.

M. HIBERT,  
General Merchant.

#### NOVELTY IN ALARM CLOCKS.

A noiseless alarm clock would prove a boon to a host of sufferers from unreasonable din. The suggestion is made that a silent alarm can be given by focusing an electric lamp upon the head of the person to be awakened, and arranging a switch so that the current to light the lamp would be turned on by the clock at the desired time. It is claimed that the flash of light would invariably arouse the sleeper.

It is a mistake to offer your friends inferior tea when you can just as easily give them Blue Ribbon Ceylon Green.

Sozodont for the Teeth and Mouth 25¢

#### SPEED RECORDS ON THE OCEAN.

English Torpedo-Destroyer Viper is the Fastest Boat.

The following brief statistical review of ocean speed records for the various classes of ships is compiled by Ueberall, the organ of the German Maritime Association: "The Deutschland, of the Hamburg-American line, is now the swiftest commercial vessel. She made the trip from New York to Plymouth, 2982 marine miles, in five days, seven hours, in September, 1900, which corresponds to an average speed of 23.36 knots.

"This speed is surpassed only by torpedo boats. In 1870 the record was held by the Miranda, with a speed of 16.2 knots; in 1892 a torpedo-boat built in the Schichau works made 27.4 knots, and later this was surpassed by the English torpedo-boats and destroyers, with speeds of 31 knots. These were in turn beaten in 1897 by the Turbinia, another English torpedo-boat, driven by a steam-turbine and making 32.76 knots.

In 1898 the Schichau works won back the record with torpedo-boats built for China, whose speed was 35.2 knots with a displacement of 283 tons. This record was not beaten until last summer, when the English torpedo-destroyer Viper made 35.8 knots at its trials. A similar boat, the Cobra, built at Elswick, has made 35.99 knots.

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Large Liquid and Powder, 75c

At all Stores, or by Mail for the price.  
HALL & RUOKEL, Montreal.

#### TAKE CARE OF THE ORCHARD.

Mr. Eben James Tells of Apple Culture in California.

Eben James, the Toronto apple exporter, has recently returned from a trip to California. While absent Mr. James visited the Newton Pippin district. In a letter to The Sun, dealing with the impressions received while away, Mr. James says: "I was very much struck with the extreme care which the American growers take in their orchards; these are plowed up, the trees properly pruned, and it is almost impossible to see a weed growing anywhere."

"As one of the largest receivers of apples for export, and, therefore, having the interests of the Canadian growers very much at heart, I could not but compare these well-kept orchards with many of our own. In the valley I speak of, which is about 15 miles long by 8 wide, it would be impossible to find an orchard that is in the highest state of cultivation. I am not referring now to the comparatively few sections in Canada where growers have awakened fully to the value and the profit from good orchards, but to the condition of affairs which exist generally all over a large portion of this country. When I travel in this country in the fall I am often ashamed at finding so many farmers regarding their orchards as of little value; if they produce all well and good, but if not they do not seem to care; some even foolish enough to argue that they have pruned and manured and cultivated and still have not received any better crops than when they left their plantations alone; others claim that the prices are not enough inducement."

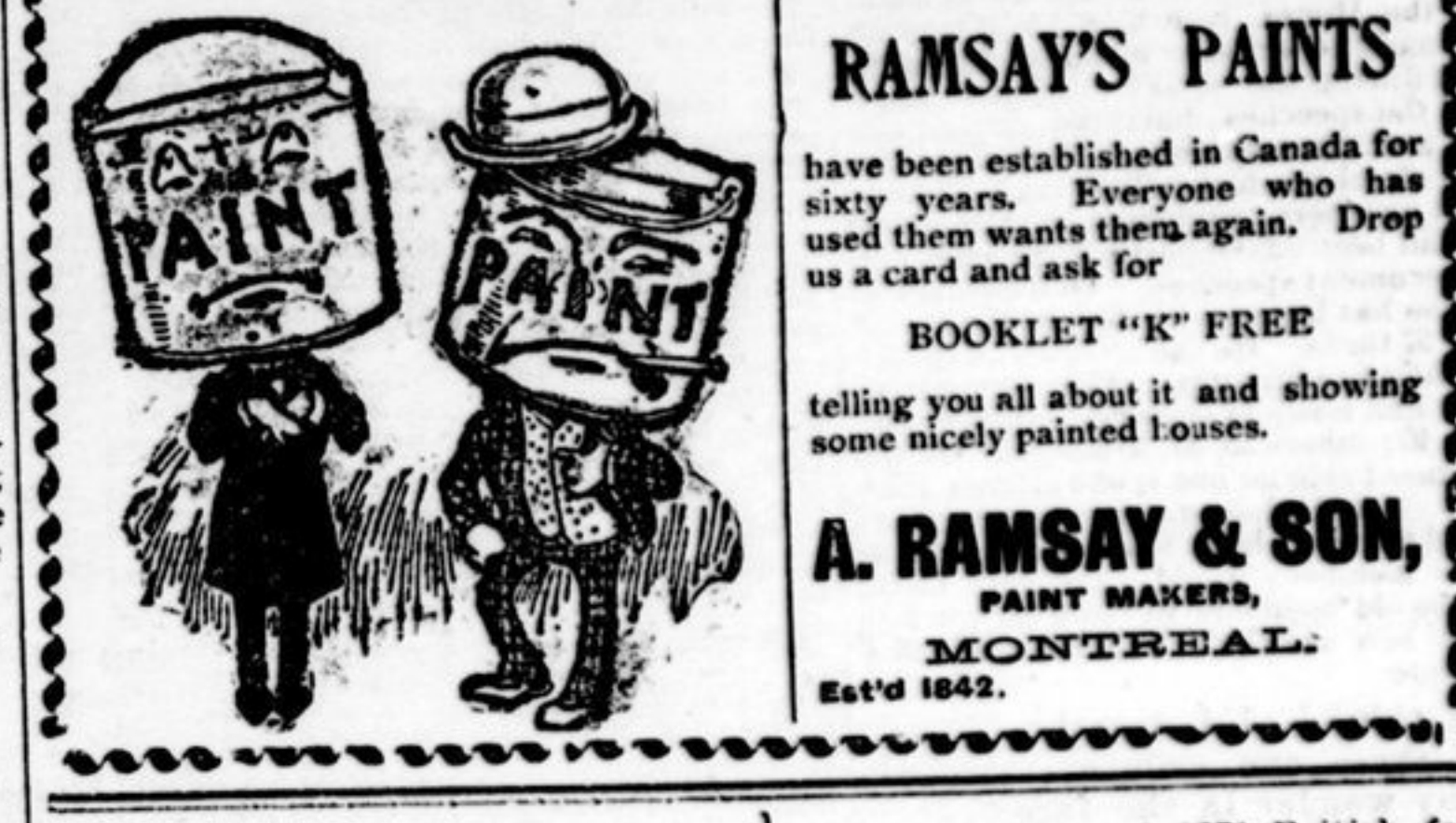
"Canada can, on account of the northern location, grow BETTER KEEPING APPLES than most sections of the United States, yet at present we supply only about one-third of the total apples exported for consumption in Great Britain, and with the increasing United States home demand there is all reason to fear but that there will always be a market for many years to come. While the acreage may be getting larger, the older trees are beginning to fail."

"Quite an evolution is taking place in the fruit trade, and from now on it will be very hard to market the inferior apples. Even the local markets which formerly were comparatively indifferent to quality, now insist on having No. 1 apples or nothing, and the sale for No. 2 is extremely limited. An orchard without proper care any more than a cow can produce milk without food; the trees must be manured and pruned and looked after in the best possible manner. Results will certainly show in the second or third year, and nothing will pay a grower better. A good crop, even at 50¢ a barrel for the fruit, will pay as well as anything a farmer can grow, and this low price is exceptional, as in many years' apples will average double. Why, then, neglect the orchard? We should care more for the competition of export apples, and the growing conditions are favorable if we

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telling you all about it and showing some nicely painted houses.

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MONTREAL.  
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#### JUGGLING LETTERS AND FIGURES

Little punning catches are appreciated by a good many people. Here is an old one that is good:

If a father gave one of his sons nineteen cents and the other six cents, what time would it be?

The answer is Quarter to two.

And here is one of more recent birth:

If a postmaster went to a menagerie and was eaten by one of the wild beasts, what would be the hour?

Perhaps you'll have to think this over a little. Yet the answer is very simple. It is 8 P.M.—of course.

If a guest at a restaurant ordered a lobster and ate it, and another guest did the same, what would the latter's telephone number be?

It would be 8-1-2.

#### W P C 1078

Among the richer classes 313 in 1,000 live to 60 years of age, in the middle classes 175 do so, and 156 only of the labouring class survive to reach 60 years.

#### MINARD'S LINIMENT CURES DISTEMPER.

The word "garotte," the name of the Spanish instrument of execution, simply means stick. This is because originally the cord round the neck was twisted by means of a stick.

#### AVENUE HOUSE

McGill-College Avenue  
Family Hotel rates \$1.50 per day.

The estimated value of the Falls of Niagara, if the whole force of the falling water were employed electrically, is \$300,000 a day, or 108 millions sterling a year.

#### CALVERT'S CARBOLIC OINTMENT.

For all skin ailments.

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