

**A pure hard Soap**

# SURPRISE SOAP

**MAKES CHILD'S PLAY OF WASH DAY**

**WORLD'S FAIR, ST. LOUIS, April 30-Dec. 1, 1904, CALIFORNIA, MEXICO, FLORIDA.**

One way and round trip tourist tickets are on sale daily. Choice of routes and stop over privileges at principal points. Grand Trunk trains make direct connection at Chicago with all railways for famous winter resorts. For tickets and all information apply to

**W. E. BISPIN,**  
City Ticket Agent,  
115 King Street, Chatham.

**WABASH**

In the great winter tourist route to south and west, including Texas, Old Mexico and California, the lands of sunshine and flowers. Through standard and tourist sleeping cars are now run via this great southern route. The new and elegant trains are the Wabash are hauled by the most powerful engines ever built. Every effort is provided equal to the best. Nothing is wanted to complete one's happiness. The days and nights pass only too quickly while travelling on the great Wabash line. For information as to rates, routes, etc., address any ticket agent or J. A. Richardson, Dist. Pass. Agent, N. E. corner King and Yonge streets, Chatham.

**J. C. PRITCHARD,**  
Agent.

**CANADIAN PACIFIC**

WORLD'S FAIR, ST. LOUIS, APRIL 30TH TO DECEMBER 1ST, 1904.

Through Transcontinental Service

Leaving Toronto at 11:45 p.m. daily (via North Bay) for  
**PORT ARTHUR, RAIL PORTAGE, WINNIPEG, MOOSE JAW, CALGARY, REVELSTOCK, VANCOUVER AND B.C. PORTS.**

FIRST CLASS SLEEPERS, DAILY, TORONTO TO WINNIPEG, connecting with through First Class Sleeper for Vancouver. Daily service. Excellent Dining Car Service, North Bay to Laggan and Revelstoke to Salmon Arm. Fully Equipped Tourist Cars. Leave TORONTO at 11:45 p.m. on TUESDAYS and SATURDAYS and NORTH BAY at 10:30 p.m. on THURSDAYS and SUNDAYS. Tickets without change. Berths in Tourist Cars, in addition to passage ticket from Toronto to Winnipeg, \$4.00. Moose Jaw, \$5.00. Calgary, \$6.00. Revelstoke, \$7.50. Vancouver, \$10.00. For Maps, Time Tables and all information apply to any agent of the company or **H. HARPER, City Passenger Agent.**

**Choice Pictures**

**and Picture Frames**

and Latest Designs in **WALL PAPERS** at

**TILT'S.**

Next Rankin House. Order now for Christmas. Articles selected now until Christmas if desired.

**JOS. TILT**

at **\$625.00**

buy a large frame house and lot 100 feet, on King Street.

**\$2500.00**

purchase a very desirable up-to-date, all modern conveniences, and a large enough for another house. E. A. limited supply of calendars and for distribution. See over Meynell's Store, King St.

**Bunn & Charteris**  
P. O. Box 125. Res. Phone 201 A.

**MAGAZINES**

**AND PERIODICALS**

By Annual Subscription. At lowest rates to the public. If you are a subscriber to one or more periodicals, I can save you time and money. A post card will bring price lists.

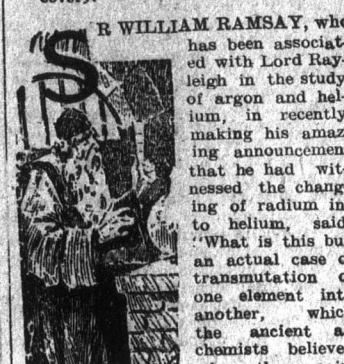
**G. W. SPRAGUE,**  
CHATHAM, ONT.

Minard's Liniment Cures Disasters

## FAIRY TALE OF SCIENCE

ARE SCIENTISTS TO RECOGNIZE THE TRANSMUTATION OF METALS?

Changing of Radium into Helium a Triumph for Modern Alchemy—Mr. E. M. Hunter, Who Says He is Commercially Changing Silver Into Gold, on the Importance of Sir William Ramsay's Discovery.



**SIR WILLIAM RAMSAY,** who has been associated with Lord Rayleigh in the study of argon and helium, is recently making his amazing announcement that he had witnessed the changing of radium into helium, said:

"What is this but an actual case of transmutation of one element into another, which the ancient alchemists believed when they painfully sought to change lead into gold and incidentally founded the science of modern chemistry?"

In this connection may be remembered the recent apparently incredible announcement by a well known scientist that he had succeeded in transmuting silver quickly and cheaply into gold. The discoverer of this amazing process, Mr. Rudolph Melville Hunter, of Philadelphia, who told a story of work already accomplished and of plans in contemplation which suggested a page from the "Arabian Nights," has been awarded upward of four hundred patents at Washington of recognized commercial value, while his work is recorded in the standard biographies. Mr. Hunter's analysis of the discovery of the distinguished English metallurgist and its far-reaching influences follows:

"The announcement from London that Sir William Ramsay has discovered that the emanations from radium, when kept in a sealed condition, were converted into helium, has created considerable comment, and has caused many men of science to admit that it looks very much like transmutation—the long sought goal of alchemists for ages. The public may recall that some months ago my announcement that I was daily transforming one metal into another—namely, silver into gold—was looked upon with incredulity, yet we



**SIR WILLIAM RAMSAY.**

have in the present developments of Sir William Ramsay another evidence of the correctness of the theories I then advanced. "As I am constantly transmuting one metal into another and therefore know, with absolute certainty, that metals are not primary elements but are creations of a common primary substance under different electrical conditions, I am ready to accept it as quite probable that gases are equally transmutable. In fact, I see no reason why all the so-called primary substances of our text books on chemistry should not be transmutable one into each other or into other substances. "I have before asserted and wish to again say as positively as the English language will permit, that alchemy is an accomplished fact—not based upon the almost unknown substances, but with the ordinary metals we are daily accustomed to see and handle. "Copper, lead and silver are readily converted into gold, for example; and when it is borne in mind that the transmutation of silver into gold is accomplished in less time than one minute, we should not be astonished by the fact that the emanations of radium should, in the space of from one to two weeks, be transformed into helium and to even then disappear at a period of one month. "Radium, like uranium, is radioactive, but with far greater intensity. It produces a very decided electrification of the air in its vicinity, and which extends to surrounding objects. While radium has a high atomic weight, its emanations have a very low atomic weight when taken into consideration with respect to the space they occupy. If, as assumed by Professor Ramsay, it would require a million years to dissolve radium into a gas, it is evident that the quantity of gas produced in a few hours from a few grains of radium would be so relatively small and attenuated that it again densified the resulting product would disappear to the eye. It would also disappear from the spectrum, since the emanation would undoubtedly mean the loss of its radio-active properties. "Helium has an atomic weight of about one two-hundredth part that of radium, and consequently it is reasonable to find in the condensed gas a substance of approximately the lowest atomic weight. Helium is the gas found in abundance in the solar atmosphere, but until comparatively recent date it was not found in the earth, presumably because the condi-

tions for its creation are not normal at the present age of the world.

"The radio-activity of radium is undoubtedly an electrical condition of its ultimate particles, which, so long as they remain in sufficient quantity, keep up that tremendous bombardment among themselves which maintains the luminosity and radio influence that will cause the gaseous emanations to remain as radium gas. This activity of the gas will endure for a couple of weeks, with a gradual decreasing value, and will finally disappear. "Mr. Curie found that if the gas were not sealed its radio-activity decreased one-half in every twenty-eight minutes, and that if sealed in glass it diminished one-half every four days; therefore it follows that the radio-activity is less than one-hundredth of its first value at the end of four weeks, in which case the gas ceased to be visible, as pointed out by Professor Ramsay. "As the radio-activity diminishes a condition is reached where the inductive influence of the particles decreases so that the rapidity of movement becomes less, the orbital range becomes limited, and hence the same number of ultimate particles are condensed into smaller space and helium is produced. But helium is an unstable gas, and by further loss of radio-activity the gas becomes so greatly condensed that it assumes a condition that does not affect the spectrum, and it is therefore said to disappear altogether. If it disappeared as helium it nevertheless exists as a substance, but so greatly reduced in bulk that it is invisible. "I would point out that the unstable character of substances in process of transmutation is well settled. In changing silver and copper into gold a failure to secure the proper conditions frequently produces an intermediate metal which is neither silver nor gold, but which, having the appearance of gold under heat and acid tests, will return to silver in due time. "If the process be carried on with the proper conditions then the transmutation is complete, and no natural conditions will cause the gold to return to silver or copper. It is then gold for ages to come. At the present time my work in transforming silver into gold has reached such perfection that the unstable intermediate metal is not produced, and all the gold made is absolutely stable in the first instance. "Helium is in great quantity in the sun's atmosphere, and is no doubt due to the attenuated condition of certain portions of the primary matter outside of the more condensed central portions. When the primary matter becomes condensed to different atomic weights it becomes definite substances, and these substances are influenced by the radio-activity, or electrons, which impart motion under educational action to the ions or ultimate particles. "So then lead, iridium, mercury, gold, bismuth, osmium and platinum should be readily convertible into each other if their electrons or radio-activities can be properly governed during transmutation. Having already been able to commercially convert several substances into gold at a cost of about five per cent. of the gold produced, I am fully convinced that I shall soon be equally able also to transform lead into gold commercially. In due time we shall be manufacturing platinum, mercury and other valuable metals of commerce. "I predict that in less than one year the scientific world will have fully recognized the conditions of alchemy which are with us to-day and outlined above. Of course I realize how very averse the public is to believe that the precious gold they work so hard to secure can be made in unlimited quantities from baser metals with wonderful rapidity and small cost. They will, however, accept this fact when in the very near future a plant of magnificent proportions is reared in this country and produces \$100,000,000 of gold per annum. "While alchemy of the ancients comprehended the transmutation of metals alone, modern alchemy draws no such distinction as I can see no reason why any of the non-metallic elements, so-called, such as oxygen, hydrogen, nitrogen and carbon, cannot be converted one into the other or into other substances."

There's nerve nourishment in Blue Ribbon Tea. There's rest for tired brains and worn-out bodies. There's food for impoverished blood. The most delicate and fragile leaves of the tea plant are in this tea—that's why it is so fragrant and aromatic. Blue Ribbon Tea invigorates the faculties—makes the mind clear, gives new zest to living.

**Blue Ribbon Ceylon Tea**

Black, Mixed Ceylon Green 40c. should be Fifty Ask for the Red Label

**SAWS**

AND . . .

**AXES..**

**For Almost Nothing.**

We are now selling our Cross Cut Saws and Axes at a discount of 20 per cent.

Call and inspect our stock before you buy.

**A. H. PATTERSON'S,**

PHONE 61.

Three Doors East of Market.

**For the Bachelor Maid.**

Deny that you are one. In fact, never mention the topic. Go your own way, making the best of life, but by all means have something to do that is "worth while." The single woman who spends her energy in keeping up appearances, putting a shining front on a solitary selfish life, is missing the clew to a happy existence. Find some one else to live for and try to help humanity along.—Exchange.

**OLD FOLKS CAN'T STAND**

Harsh, purging medicine, but invariably find Dr. Hamilton's Pills of Mandrake and Bitternut the mildest cure for constipation and sick headache. No gripping pains, sure cure, price 25c. Use only Dr. Hamilton's Pills.

Some people never begin to save for a rainy day until they see the clouds gathering.

Very few of us can go through life enjoying the luxury of being waited upon.

**FOR STOMACH TROUBLES.**

"I have taken a great many different medicines for stomach trouble and constipation," says Mrs. S. Geiger, of Dunkerton, Iowa, "but never had as good results from any as from Chamberlain's Stomach and Liver Tablets." For sale by all druggists.

The bride may promise to obey, but it is a woman's privilege to change her mind.

In an argument the bluntest words are often those which come to the point.

**HIS OWN FREE WILL.**

Dear Sirs,—I cannot speak too strongly of the excellence of MINARD'S LINIMENT. It is THE remedy in my household for burns, sprains, etc., and we would not be without it. It is truly a wonderful medicine. JOHN A. MACDONALD, Publisher Annapolis Chronicle.

The handsomest wrist bags in many instances are long and narrow.

Minard's Liniment is used by Physicians.

**PHOTOS OF L. E. & D. R. Wreck**

NOV. 23rd, 1903, AT

**The Gibson Studio.**

50c each, or \$2.50 for set of six Photos. . . .

**Studio Cor. King and 5th St.**

**FIRE, LIFE & ACCIDENT**

Money to loan at lowest rate of interest. . . .

**GEO. K. ATKINSON**

Phone 346 5th Street, Next Harrison Hall

Minard's Liniment — Lumberman's Friend.



There's nerve nourishment in Blue Ribbon Tea. There's rest for tired brains and worn-out bodies. There's food for impoverished blood. The most delicate and fragile leaves of the tea plant are in this tea—that's why it is so fragrant and aromatic. Blue Ribbon Tea invigorates the faculties—makes the mind clear, gives new zest to living.

**Blue Ribbon Ceylon Tea**

Black, Mixed Ceylon Green 40c. should be Fifty Ask for the Red Label

**SAWS**

AND . . .

**AXES..**

**For Almost Nothing.**

We are now selling our Cross Cut Saws and Axes at a discount of 20 per cent.

Call and inspect our stock before you buy.

**A. H. PATTERSON'S,**

PHONE 61.

Three Doors East of Market.

**For the Bachelor Maid.**

Deny that you are one. In fact, never mention the topic. Go your own way, making the best of life, but by all means have something to do that is "worth while." The single woman who spends her energy in keeping up appearances, putting a shining front on a solitary selfish life, is missing the clew to a happy existence. Find some one else to live for and try to help humanity along.—Exchange.

**OLD FOLKS CAN'T STAND**

Harsh, purging medicine, but invariably find Dr. Hamilton's Pills of Mandrake and Bitternut the mildest cure for constipation and sick headache. No gripping pains, sure cure, price 25c. Use only Dr. Hamilton's Pills.

Some people never begin to save for a rainy day until they see the clouds gathering.

Very few of us can go through life enjoying the luxury of being waited upon.

**FOR STOMACH TROUBLES.**

"I have taken a great many different medicines for stomach trouble and constipation," says Mrs. S. Geiger, of Dunkerton, Iowa, "but never had as good results from any as from Chamberlain's Stomach and Liver Tablets." For sale by all druggists.

The bride may promise to obey, but it is a woman's privilege to change her mind.

In an argument the bluntest words are often those which come to the point.

**HIS OWN FREE WILL.**

Dear Sirs,—I cannot speak too strongly of the excellence of MINARD'S LINIMENT. It is THE remedy in my household for burns, sprains, etc., and we would not be without it. It is truly a wonderful medicine. JOHN A. MACDONALD, Publisher Annapolis Chronicle.

The handsomest wrist bags in many instances are long and narrow.

Minard's Liniment is used by Physicians.

**PHOTOS OF L. E. & D. R. Wreck**

NOV. 23rd, 1903, AT

**The Gibson Studio.**

50c each, or \$2.50 for set of six Photos. . . .

**Studio Cor. King and 5th St.**

**FIRE, LIFE & ACCIDENT**

Money to loan at lowest rate of interest. . . .

**GEO. K. ATKINSON**

Phone 346 5th Street, Next Harrison Hall

Minard's Liniment — Lumberman's Friend.