

**Sights Inside The Earth**

**A Sphere of Gaseous Iron 6,000 Miles in Diameter Surrounded by White-Hot Molten Rock—All Are Enclosed by a Thin Shell of Rocky Leaves Containing History's First Primar. By Garrett P. Serviss**

"If the ball traveling through the earth had eyes and a more leisurely journey, what would it see?"—Harry W. Young, Chicago.

This refers to an article of mine about the dropping of a ball through a hole supposed to be bored diametrically through the earth's center. Excluding the effect of air resistance and of the earth's rotation, and other disturbing elements of the problem, I showed that the ball would drop to the center in about twenty-two minutes, then rise in the same time to the opposite surface, then return to the starting point and thus keep on swinging to and fro through the earth like a pendulum bob.

I may here add the curious fact that, assuming the earth to be homogeneous, the time required would be the same whether the ball started from the earth's surface or from any point within the earth, however close to the center.

As to what the ball or a supposititious inhabitant of the ball would see on its journey, only more or less probable assertions can be made because our knowledge of the state of things prevailing in the interior of the earth is still very imperfect and uncertain. There are four or five different theories on the subject, no one of which may represent the actual facts. We know more about the surface of the Moon, or even of Mars, than we do about the interior of the earth, because, we can see, though we cannot reach, the former, while we can neither see nor reach the latter.

Of course, we do know by inspection, and by pretty certain inference, a good deal about the upper layers of the earth's crust, but after all, this knowledge relates only to a kind of epidermis.

The deepest mine in existence goes down less than a four-thousandth of the distance from the surface to the center of the earth and even the deepest boring penetrates only 1-530 of that distance and is but little over two inches diameter at the bottom.

It used to be generally believed that below a depth of twenty or thirty miles the earth was composed of molten liquid rock. This was based on the fact that, as we go down, the temperature increases about a degree Fahrenheit for every sixty feet of descent (the rate varying in different localities); but for reasons into which I cannot here enter, the general opinion is that the interior is rigid, even, perhaps, on the average as rigid as steel, owing to the pressure, although the heat may be great enough to liquify or even to vaporize all rocks and metal not subjected to such pressure.

A picturesque idea of the Swedish chemist, Arrhenius, who thinks that the central core of the earth about 6,000 miles in diameter is probably composed of iron in a potentially gaseous condition, is so hot but for the pressure it would flash into gas. Above this he depicts a shell about 600 miles thick of rock substance in the same potential gaseous state, then a stratum about 150 miles thick of similar substance in a white-hot liquid condition, and finally the upper crust, not over 100 miles in average thickness, on whose surface we comfortably dwell.

Let us assume that this scheme represents substantially the real condition of the earth's interior, and further that a hole could be driven straight through the entire mass without producing any local effects upon the state of the various layers. Then, as the ball started on its journey, it would at first be passing through what we might call the geological realm, consisting of broken and pictured layers of rock that like torn leaves contain the fragmentary geological history of the earth. If only the hole could be bored along a diameter where the successive leaves lay in true historical order, (if such a thing were possible), the eyes in the descending ball would behold the whole story of the development of terrestrial life displayed in reverse, going back through the aeons of time from man and his contemporaries through the great Neozoic, Cainozoic, Mesozoic and Paleozoic eras to the dark Azolic, when no life had yet appeared.

Starting from the wall of the tube through which the ball dropped would appear in succession the skeletons of prehistoric men, or primal men, of ape men, of man apes, of the primates and the anthropoids, and after that only of simple brutish physical giants, many of them fighters, destroyers, mere living machines, with no gleam of intelligence in their reptilian eyes.

**RETIRED BRITISH ADMIRALS DARING AS IN DAYS OF OLD**

London.—A striking feature of the naval side of the war is the number of retired admirals who have returned to the Navy, bringing with them the full vigor and quick determination characteristic of the service.

On June 10, when an explosion took place on a motor launch, Commodore Sir James Startin, who held the rank of admiral, retired, immediately proceeded alongside and, learning that the engineer was below in the fiercely burning engine room, climbed down the hatch without the slightest hesitation and unaided recovered the engineer's body. For this brave deed King George has approved the award of the Albert medal to Admiral Startin.

Another gallant deed is recorded in connection with an explosion April 12, last, on another motor launch. The officers and crew were blown or forced to jump overboard. Lieutenant Commander Keith Robin Hoare and Lieutenant Gerald Bagot jumped into a dinghy, rowed to the wreck, got aboard and removed a depth charge, thereby preventing an explosion which might have caused a serious loss of life among English and French sailors on a nearby quay. Both officers have been awarded the Albert medal.

**FRENCH AND HUN NAMES PUZZLE U. S. FIGHTERS**

Paris.—The American soldiers in France are having a tough time with the French and German military names.

"Hey, Jack," shouted Corporal Ben Adams, of the U. S. Marines, gleefully to a pal of his, "the Marines have captured two 'Minnie Werfers.'" "Sal right," answered his pal, a sergeant of Marines, "the Werfer girls may rest assured they will be in good hands."

**"The Live Store"**

**"Always Reliable"**

This "Live Store" will be closed all day Monday, "Labor Day" We will all be ready for a well-earned rest, for never in the history of the store have we had such a "busy" month as during this greatest Semi-Annual "Strictly Cash"

# MARK-DOWN SALE

Where Everything In Our Entire Stock Is Reduced Except Collars

A great many people read the daily papers and often overlook very important messages that have been written for their mutual benefit — but we can truthfully say that very few, "if any," have neglected to read this "Live Store's" daily announcements for it seems as though almost everybody for miles around has been in Doutrichs some time or other during this Semi-Annual Clearance Sale.

Our rapid progress can be accounted for in various ways — Our methods are so vastly different from ordinary stores; we go the limit to please our customers and follow their advice closely, that's why we sell only standardized merchandise because we know it gives our loyal patrons the desired satisfaction. Throughout this "strictly cash" clearance we have been selling at reduced prices all "Manhattan Shirts," "Munsing Underwear," "Monito Hose," as well as

## Hart Schaffner & Marx & Kuppenheimer Clothes

In all our experience we have never witnessed such a pronounced success as this money saving opportunity. We can scarcely believe that so much merchandise could be sold in a few weeks in a store the size of this, but, if you were to "keep your eyes" on our salesmen from early morning until the close of each day you'd readily agree that this "Live Store" is having a phenomenal growth — Help it grow larger if you think we deserve it

**Shirts**

All \$1.00 SHIRTS .....	70c
All \$1.50 SHIRTS .....	\$1.19
All \$1.85 SHIRTS .....	\$1.59
All \$2.50 SHIRTS .....	\$1.89
All \$3.50 SHIRTS .....	\$2.89
All \$5.00 Silk SHIRTS .....	\$3.89
All \$5.85 Silk SHIRTS .....	\$4.89
All \$6.85 Silk SHIRTS .....	\$5.89
All \$7.85 Silk SHIRTS .....	\$6.89

**Boys' Suits**

All \$6.50 Boys' SUITS .....	\$4.95
All \$7.50 Boys' SUITS .....	\$5.95
All \$8.50 Boys' SUITS .....	\$6.95
All \$10.00 Boys' SUITS .....	\$7.95
All \$12.00 Boys' SUITS .....	\$9.75
All \$15.00 Boys' SUITS .....	\$11.75
All \$18.00 Boys' SUITS .....	\$14.75
All Boys' Knee Pants Reduced	

**Women's and Girls' "Silk Fibre" and Shetland Sweaters Half Price**

**Hosiery**

All 20c HOSIERY, 14c
All 25c HOSIERY, 19c
All 35c HOSIERY, 29c
All 50c HOSIERY, 39c
All 75c HOSIERY, 59c
All \$1.00 HOSIERY, 79c

All \$20.00 Suits	\$15.75
All \$25.00 Suits	\$19.75
All \$30.00 Suits	\$23.75
All \$35.00 Suits	\$27.75
All \$40.00 Suits	\$32.75
All \$45.00 Suits	\$36.75

**Underwear**

All 95c Underwear	79c
All \$1.25 Underwear	99c
All \$1.75 Underwear	\$1.39
All \$2.50 Underwear	\$1.89
All \$3.00 Underwear	\$2.39
All Boys' Underwear Reduced	

**All Straw Hats and Panamas Half Price**

**Wool Sweaters**

All Men's and Boys' \$3.98 SWEATERS	\$3.19
All Men's and Boys' \$5.00 SWEATERS	\$3.89
All Men's and Boys' \$6.50 SWEATERS	\$4.95
All Men's and Boys' \$8.50 SWEATERS	\$6.95
All Men's and Boys' \$10.50 SWEATERS	\$8.95

**Trousers**

All \$3.00 TROUSERS .....	\$2.39
All \$4.00 TROUSERS .....	\$3.19
All \$4.50 TROUSERS .....	\$3.39
All \$5.00 TROUSERS .....	\$3.89
All \$6.50 TROUSERS .....	\$4.95



304 Market Street



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