

## Clipping, May 1, 1904

**THE WASHINGTON TIMES, SUNDAY, MAY 1, 1904. DR. BELL'S KITES FLY LIKE BIRDS**

**Tests at Columbia, Va., Are Successful.**

**500 PERSONS WITNESS THEM**

**Three Tetrahedrals, Weighing Three Pounds Each, Support a Man Weighing 160 Pounds.**

The tetrahedral kites are a success. Yesterday afternoon, just beyond Arlington, Dr. Alexander Graham Bell, the inventor of the kites, made a series of tests which were eminently satisfactory. Dr. Bell concludes that when a motor and propellers are attached, which can be done easily, a practicable flying machine will be produced.

The experiments were conducted at the Weather Bureau grounds at Columbia, Va., where there is a wide expanse of turf which has been devoted to kite experiments in the past. The great kites that have been tried at Baddeck, Nova Scotia, were not in evidence, but types of them were, and Dr. Bell showed what the larger kites could accomplish.

**500 Persons Present.**

The National Geographic Society was the patron of the occasion. It was one of the society's outings, in charge of which were Dr. F. V. Coville and Gilbert H. Grosvenor. About 500 persons made the trip. There was scarcely a breath of air stirring, and everybody realized that the kites would not be able to make a very spectacular appearance, but despite this fact the attendance was not decreased. Dr. Bell deprecated

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the idea that he was going to show a flying machine, but everybody, nevertheless, seemed to be laboring under something like this impression.

Among the most interested spectators were Prof. Langley, inventor of the "Buzzard," and Mr. Manley, his chief assistant. They both watched the experiments carefully, and both seemed aggrieved when, on one occasion, the kite failed to fly. Memories of certain incidents on the Potomac had probably flashed across their mental vision.

### **Dr. Gilbert Speaks.**

It was something after 3 o'clock when Dr. G. K. Gilbert, vice president of the National Geographic Society, mounted the table that had been arranged as a rostrum, and began his introduction of Dr. Bell. Dr. Gilbert said it was only a few years ago when the kite was used universally by children as a toy, and only within a very short time that its scientific value had been recognized.

"With the balloon and the aeroplane it is making the race for the building of the first successful flying machine," said Dr. Gilbert. "It is hard to hazard which will be the victor. The balloon has a way of going up into the air and disappearing, while the aeroplane sometimes treats its operator to a bath in the river."

Everybody laughed at this thrust at the "buzzard." Mr. Manley tried not to look conscious. He failed.

### **Experiments of Dr. Bell.**

Dr. Bell gave a brief account of his efforts to solve the problem of aerial flight and his troubles with the tetrahedral cells. Their advantages were explained in The Times of Sunday last. They relate for the most part to levity, and the relatively large wing surface. Dr. Bell told the crowd how it was done, and the crowd cheered.

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“The idea was to build a very strong structure from very light materials,” said Dr. Bell. “That is what we think we have done. The kites we are going to fly are two meters wide and weigh less than three pounds. That shows what can be done with tetrahedral cells.”

Then the kites were put up into the air—three of them. They were diamond—shaped affairs, built of spruce and red silk, and not very much heavier than a feather. There was scarcely a breath of wind blowing, but they ascended just the same. Dr. Bell scampered across country with the reel of cord in his hands. When the kite reached a reasonable altitude, and maintained a firm position, Dr. Bell, would beam with satisfaction.

### **Aluminum Supports,**

One of the kites was built of aluminum supports, and this made an especially good appearance. It caught the force of the slight breeze when only a few feet above the earth, and then soared above the earth rapidly, into the air. It was one of the times when Dr. Bell beamed. The kite flew as steadily as a rock in the air—if that can be imagined—and with never a tremor or a shock.

The aluminum ribs of the kite were apparently of the most fragile description, but their strength was shown when a 160-pound man hung pendent from them. There was not even the indication of a break. The frame remained securely together and refused to sag.

Had there been a stronger breeze the purpose was to bind three of the kites together and fly them as one. This project was abandoned because of the light wind.

### **Power and Weight.**

Dr. Bell explained, however, that with kites of his type increase of size made no difference, and that the lifting power increased only with their weight.

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The kites rose in the air from the hands of the operators and, indeed, could scarcely be kept on the ground. That they would support a man and an engine was very evident. Dr. Bell has such confidence in his kites that he regards the solution of the problem of aerial navigation as a fixed certainty.

“But where will you put your man?” asked one of the spectators yesterday.

“Why in the center of the kite,” responded Dr. Bell. “There is a cavity in there especially for him. Then he can act as ballast also.”

Experiments with the kites will be continued this summer at Baddeck. It cannot be long before the end is reached.

PROF BELL'S RED FLYER.

A CELL FOLDED FOR CARRYING

END VIEW OF MABEL II

ALEXANDER GRAHAM BELL.

MABEL II. AFLOT ON HER PONTOONS

END VIEW OF VICTOR I.