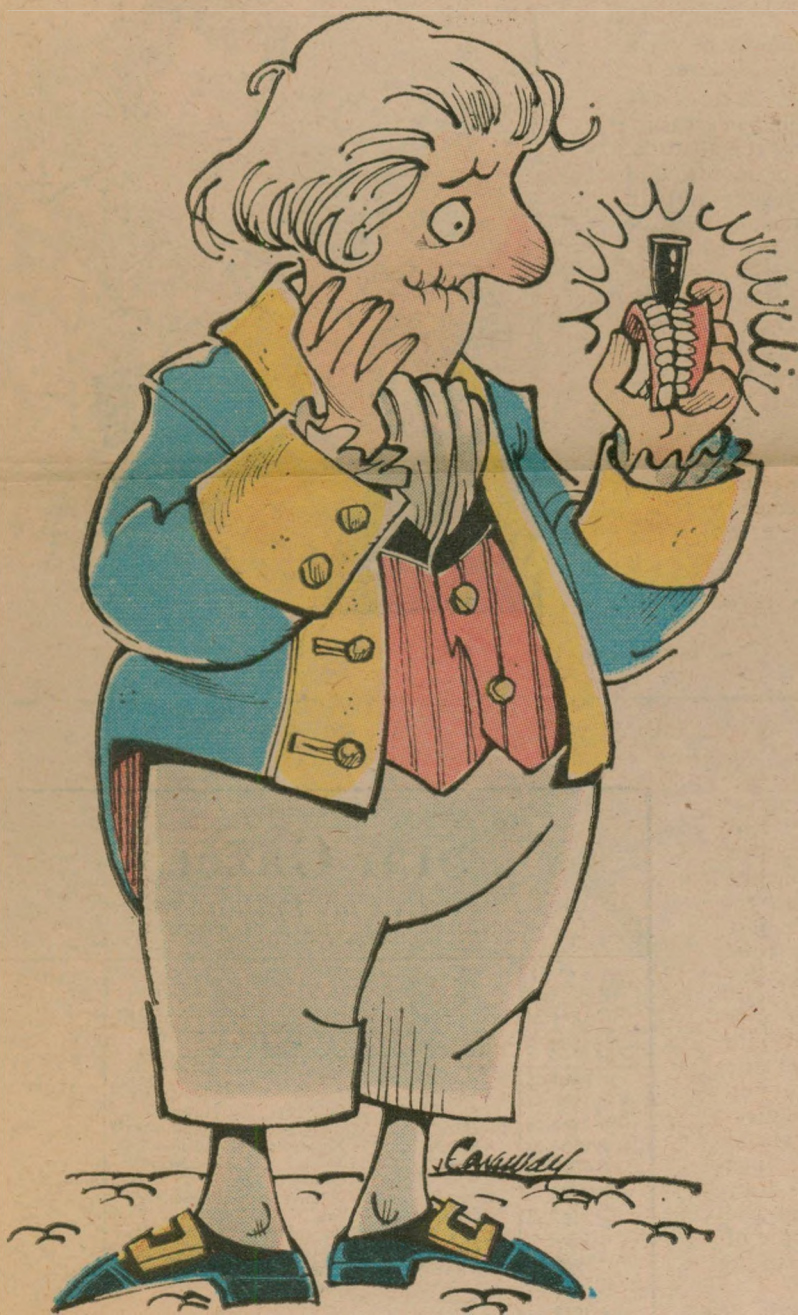


Could George Have 'Bitten The Bullet?'

By Dave Larsen



GEORGE WASHINGTON, were he alive, would be 243 years old on Saturday. And he'd have more trouble "biting the bullet" than most of us.

The Father of Our Country is never pictured smiling. And for a very good reason — his mouth was killing him.

Down through the years, he tried dentures made of lead, gold and the tusks of elephants, hipopotami and walruses. They affected him so severely that not only was his intake of food limited, but he had to avoid "s" sounds in his speech.

"Perhaps it is not surprising that Washington's second inaugural address was less than a page long, the shortest in presidential history," observed Dr. Reidar F. Sognnaes.

Sognnaes, professor of anatomy and oral biology at the University of California at Los Angeles, has made it a scholarly hobby to study the dental tribulations of our first president. He even went to South America, on the trail of a missing Washington denture which he believes to be there.

Washington, the doctor points out, was very sensitive about his oral problems.

"When Washington did seek dental care, he instructed his staff that the matter 'not be made a parade of,'" Sognnaes said. "In fact, he once camouflaged his dental bill by paying it as a hat bill."

The president's dilemma, according to Sognnaes, resulted from bad gums, rather than tooth decay. By the time he took office at age 57 he had only one of his own teeth.

"He wasn't alone in having denture problems," said Sognnaes, founding dean of the UCLA School of Dentistry. "During his time there was no good method of fitting and no good material to stand up in the mouth."

Suction Cup

It wasn't until about 1880 that there was an improvement in the retention of false teeth, namely a suction cup mounted on the denture.

Sognnaes has re-created most of what Washington wore in his mouth. The first set of dentures known to have been worn by the president and still in existence (at the New York Academy of Medicine) was made in 1789 by New York dentist John Greenwood.

The lower denture was fastened through a hole in the ivory base to Washington's own remaining tooth, a lower left premolar. This tooth eventually loosened and came out, and it was given to the dentist, who kept it on a watch chain.

The base of this denture, Sognnaes' research has determined, is of elephant ivory.

Another set, attributed to artist Charles Willson Peale, was made of lead.

"The dentures were connected by two powerful steel springs, which pressed the plates to the gum tissue," the professor said. "The entire set weighs about a fourth of a pound."

The lower teeth were from humans and elephants, but it took quite a bit of sleuthing by Sognnaes to discover what had been used in the uppers of this lead denture.

Couldn't Duplicate . . .

Tradition had it that elk teeth had been implanted, but Sognnaes could not make any that duplicated the originals.

It wasn't until Sognnaes visited a Vernon, Calif., packing house that he found what he was looking for — cattle teeth. The reshaped incisors of a cow were apparently what Washington chewed with in his lead dentures.

Another set made by Greenwood, and now on exhibit in the Smithsonian Institution, had an upper plate of gold.

"In trying to duplicate this, I found that the teeth had apparently been prepared from the jaw of a hippopotamus," said the professor.

These teeth were secured to the gold plate with braces whose sharp edges must have pained Washington's tongue and palate. This upper denture was held by spiral springs attached to the back of the lowers.

The base of the lowers was of elephant tusk. Fixed onto it were teeth carved from hippo ivory.

"It is in these lowers that we have Washington's only contact with wood," said Sognnaes. "Although wooden teeth were used in ancient China, the president never had such a set."

"The two segments of teeth in the lowers of the gold dentures were fastened to the base by means of six wooden pegs the diameter of toothpicks."

The fourth known existing Washington dental relic is a total ivory carving — both base and teeth. Sognnaes was able to duplicate it from a walrus tusk obtained from the Fowler Foundation Museum in Beverly Hills, Calif.

"One half of the original lower is at the University of London," he said.

"The walrus denture came into the possession of the first dean of the Baltimore Dental College. One of his daughters married an Englishman, which explains how part of the relic wound up in London."

Two of the dean's other daughters married into families in Brazil and Argentina in the 19th century. Whether or not the missing half of the Washington denture was intentionally removed, it is reported that one of these daughters took it with her.

Sognnaes, 62, who uses much of his own money in pursuing his Washington research, hopes to locate the missing half by the bicentennial in 1976.