

Novel Device for Wind Instruments Promises Added Possibilities for Orchestral Composition

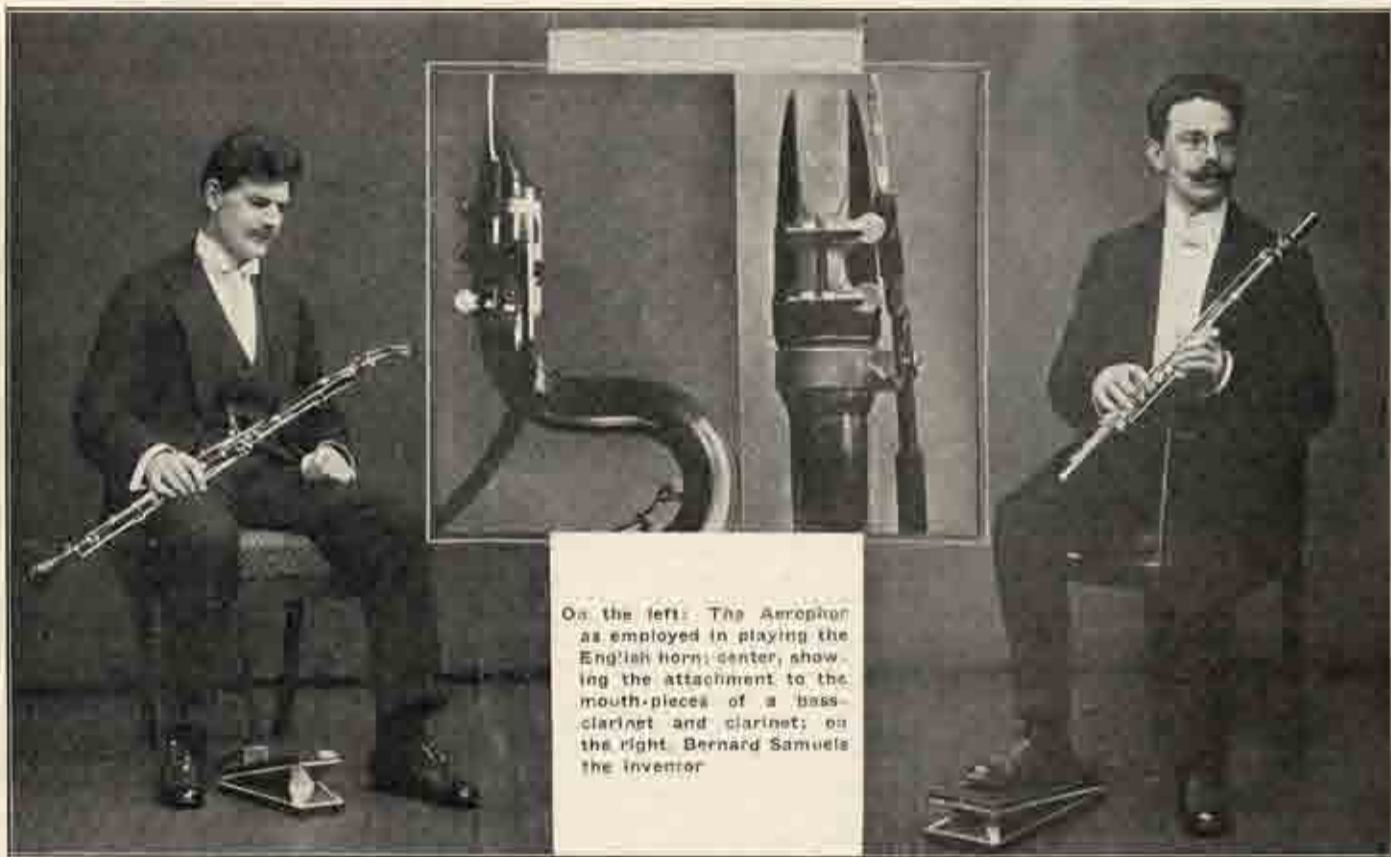
Bernard Samuels, on Visit to New York, Demonstrates Invention That Enables Performer to Sustain Tones "Ad Libitum"—His "Aerophor" Already Adopted by Richard Strauss to Obtain Tonal Effects Hitherto Unknown—A Boon Also to the Health of Instrumentalists

ACCORDING to a number of the most noted composers and conductors today Bernard Samuels has perfected an epoch-making invention; his "Aerophor," they believe, will revolutionize scoring for wind-instruments, will tinge the orchestra of the future with marvelous and hitherto unknown colors and will moreover serve a finer and more humanitarian end—it will conserve the player's health and nervous energy. Designed to sustain the tone *ad libitum* of any member of the family of wind-instruments while the player is resting his lungs, it does so perfectly and solely by means of a gentle pressure of the foot upon a dust-proof bellows.

One confesses to entertaining mingled feelings of curiosity and skepticism before speaking to Mr. Samuels and witnessing an actual demonstration of his invention. He had just returned from Boston when the writer saw him in the office of Edwin Franko Goldman at the Carl Fischer Music House. Fresh from the praise of Dr. Muck, whose orchestra had received its first practical lesson in the use of the "aerophor," the inventor explained the principles upon which his apparatus is constructed. The casual observer may find in Mr. Samuels's appearance little more than the accepted portrait of the refined, conventional musician. Yet, the brilliant eyes and restless fingers betray the thinker and worker resting a little and not altogether happy on his vacation, for he occupies, at present, the position of chamber musician to the Grand Duke Mecklinburg-Schwerin and is in this country on a four weeks' leave of absence granted him to demonstrate his invention before

American musicians. He plays the flute with exceptional facility.

A small bellows operated by one foot supplies the air. Connecting with this is



On the left: The Aerophor as employed in playing the English horn; center, showing the attachment to the mouth-piece of a bass-clarinnet and clarinet; on the right Bernard Samuels the inventor

Mr. Samuels took the "aerophor" from a large bag and adjusted it to his flute.

a rubber tubing which terminates in a small metal reed fastening near the mouthpiece of the instrument. This reed is taken between the lips together with the mouthpiece or reed of the instrument proper. But while the air that is emitted from the lungs enters the instrument it cannot proceed into the bellows, being prevented from so doing by a stop-cock placed in the tubing. Yet the air from the bellows enters the mouth. The underlying principle of the invention is simple. During the demonstration Mr. Samuels was smoking a cigar. Taking a mouthful of smoke, and breathing vigorously three or four times through his nose he emitted a great cloud of smoke from between his lips. "You see," he declared, "the smoke cannot escape by way of the nose." And then he explained how this bears upon his invention:

"When you breathe through the nose," he said, "the soft palate drops involuntarily, preventing the ingress of air, smoke or other gaseous medium. A wind-instrument player breathes through his mouth. He must, since it is a physical impossibility to emit air from the mouth and receive it through the nose at the same time. Were this not so there would be nothing to prevent him from sustaining an unlimited number of passages. With the attachment that I have designed a musician may breathe through his nose and keep his lips in the proper position at the same time, thus sustaining his tone while breath is being taken. The 'aerophor' sustains it for him. By a simple pressure of the foot on the bellows air is slowly pumped into his mouth through the reed. This air passes into the mouthpiece of the instrument without depending upon the performer for its volition. His muscles are free for the time being and he may rest before taking his next supply of air through his nose."

"How about the *embouchure* which is so essential? Will not the muscles of the lips tire from continually keeping them in the same position?" he was asked.

"That is the objection almost every musician raises," answered Mr. Samuels. "But, like everything else that is new, at first a strain is perceptible. Just as soon as the muscles and nerves become inured to their unusual duty, that of constantly holding the lips in the correct position or *embouchure*, the strain disappears. Another objection frequently raised is that the air from the bellows is bound to be dry and cold, thereby rendering the lips unfit to perform their duties. To obviate this difficulty I have designed

this small metal box which fastens to the bellows. Before passing into the tubing the air must proceed through a little compartment at the top of this box. This compartment is filled with about an ounce of water. The space beneath is taken up by the electric light connected with the equipment of every musician's stand. The bulb heats the box rapidly and warms the water through which the air from the bellows must pass. The result is that the air is warm and moist when it enters the performer's mouth."

Besides being a boon to composers the "aerophor" becomes little less than a blessing to players of such instruments as the oboe or English horn. The play-

ing of these instruments demands so little wind that the strain which results from the extremely slow expulsion becomes quite painful. Contrarily, the effort of sustaining the tone of a large brass instrument like the tuba or trombone frequently leads to dizziness and fluttering of the heart. The player cannot take sufficient breath for many phrases which have been written and the absence of oxygen in the body causes the blood to rush to the head. Hence one notices so large a number of florid-faced brass-instrument players. The "aerophor" dispels these dangers and discomforts by permitting the player to emit the superfluous air through his nose as well as to receive more by the same means.

Bernard Samuels was born in 1872 in Paramaribo, a South American possession of Holland. He took up the study of the flute in Amsterdam at the age of sixteen, although his interests, prior to this had centered mostly in mechanics. He has subsequently served in the capacity of first flutist in the opera houses of Utrecht and Essen. His invention has been enthusiastically received and adopted throughout the principal cities of Europe and is rapidly finding recognition in this country. Alfred Hertz acclaimed it as an epoch-making invention. Arturo Toscanini is delighted with the possibilities which it holds forth, and Josef Stransky has recognized its immense value. Among composers, Richard Strauss has been the first actually to introduce the "aerophor," specifying tubas with "aerophor" in his recent "Festival Prelude." But as its inventor says it cannot improve the tone of a poor player, although it does not in the least impair that of a good one.

B. R.

KITTY

CHEATHAM

The governing body of the Parents' League—which has been formed by men and women prominent in New York Society, for the purpose of uniting parents and teachers in establishing wholesome common-sense standards for the education and amusement of young people—in a public statement, made recently through the "New York Sun," says:



Portrait by E. Seymour Thomas

"We recommend in the way of music, the opera in English at the Century Theatre, and concerts of the Oratorio Society, of the Philharmonic and of the Symphonic Orchestras, as well as recitals by Ysaye, Mischa Elman, Fritz Kreisler and Kitty Cheatham."

Miss Cheatham's last recitals (before her European season) will be in:
New York City—(Lyceum Theatre)—Easter Monday afternoon, April 13. (30th public recital in New York.)
New Haven—Woolsey Hall (Yale University)—April 14.
Louisville, Ky.—(Woman's Club)—April 16.
Minneapolis—(National Conference Music Supervisors)—April 29.

Her re-engagement by the Philharmonic Society of New York; for next season (her sixth Orchestral appearance) is significant of the value of Miss Cheatham's individual contributions to Symphonic programs.

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