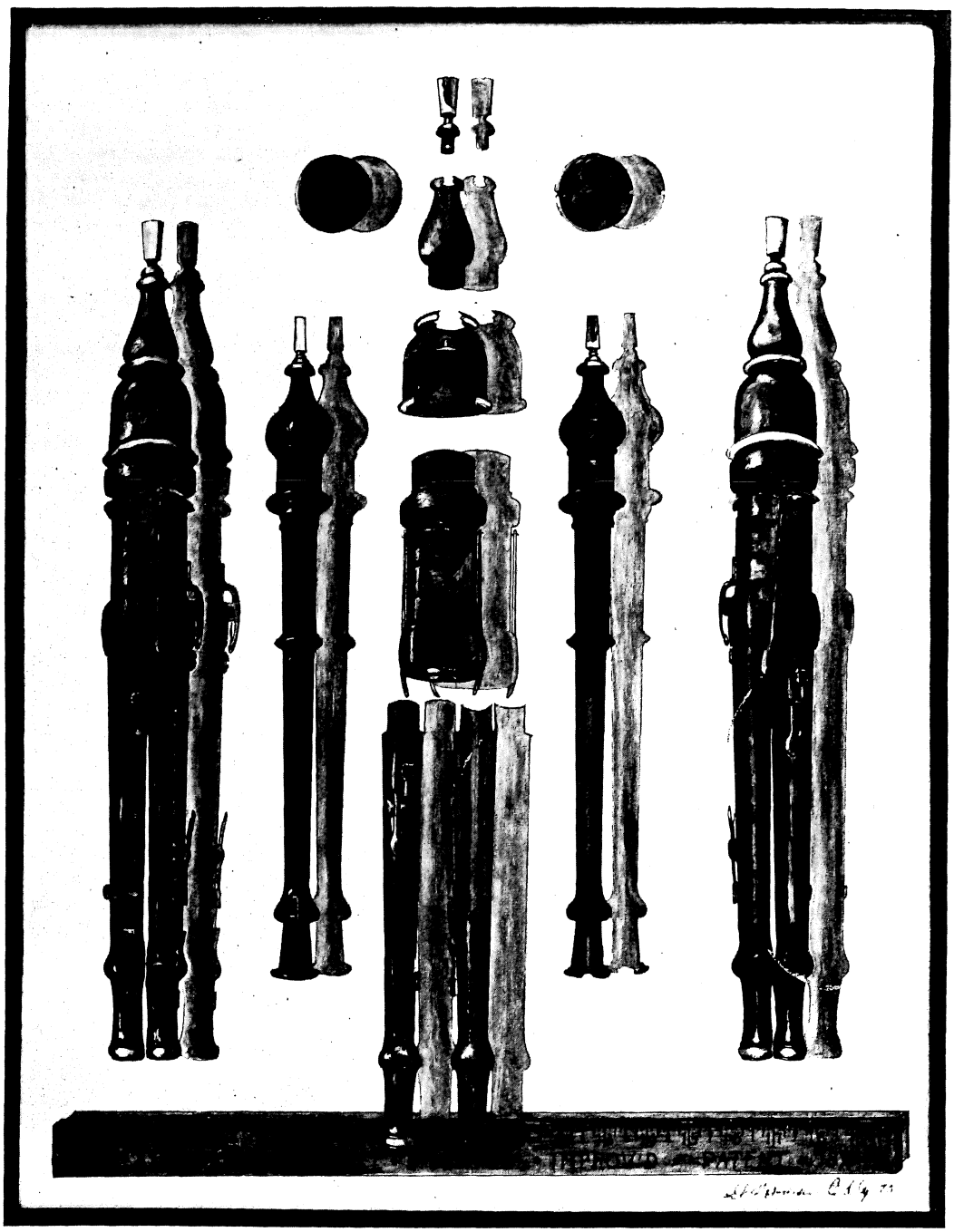
Newsletter

The American Musical Instrument Society

VOLUME 1 OCTOBER, 1972 NUMBER 4



BOARD MEETING

On October 15, 1972 a meeting was held in the home of Dr. Robert M. Rosenbaum, attended by Cynthia Hoover, Barbara Lambert, Arnold Fromme, Edwin M. Ripin, Linda Tauber, and James M. Swain. The three hour meeting considered a number of topics concerning the Society and its mission, summarized below.

Treasury: Approximately two hundred memberships and over $500.00 on hand. (Note - The exact figures as of this Newsletter - 202 memberships and $555.58 with no bills outstanding).

Dues: No increase in dues at this time. The question of special student rates will be considered if dues are to be raised at a later date. Dues will run from January thru December of each calendar year.

Membership: It was decided to solicit members through separate (individual) mailings and notices to music libraries, music departments, or schools. The separate mailings will go to members of various related societies. Bob Rosenbaum and Jim Swain will make up a poster/flyer and see to its mailing. Cynthia Hoover will help with some of the art work associated with this mailer.

Classes of membership: Commercial and library - same rates as single members.

Journal: A formal Journal will be published, most likely in the Fall, 1973, and it is anticipated that this will be on an annual basis. The size of the Journal will be similar to the present Newsletter. After much discussion concerning the editor of the Journal it was decided that a pro tem editorial board composed of Ed Ripin, Cynthia Hoover, and Barbara Lambert will choose an editor, oversee the first issue of the Journal themselves, or do both.

Incorporation: From many viewpoints it is desireable to have the Society incorporated. Bob Rosenbaum, having had experience in this matter with other organizations, will see to this.

Newsletter: There was unanimous vote of confidence in the present editor. The appointment of the editor for the Newsletter will be for two-year periods, the current period to run until December 31, 1974. The present editor was asked to write an editorial stating the general purpose and content of the Newsletter (see elsewhere in this issue). Classified ads will be accepted for services, buy and sell, but no commercial display ads. In general it was suggested that the Newsletter be concerned with news of the Society, future plans, announcements, articles of general interest, news of collectors and collections, etc. It is proposed that the Newsletter be put on a quarterly basis with fixed publication dates and deadlines. The accumulative membership list will be mailed with the January, 1973 issue of the Newsletter.

Annual Meeting: The next annual meeting will be in Boston, most likely the last weekend of April, 1973. The program committee chaired by Cynthia Hoover will also include Arnold Fromme, Dale Higbee, Robert Eliason, and Jim Swain. The meeting will be in the Boston Museum of Fine Art and Barbara Lambert will make local arrangements. An immediate call for papers (see elsewhere in this issue) is to be announced with all papers to be in the hands of Cynthia Hoover by January 15, 1973. The complete program of the meeting will be in the April, 1973 issue, published before the meeting. The next Board Meeting will take place on the evening before the annual meeting.

Elections: Election of officers and governing board members will be by mail ballot before each annual meeting. The terms of officers will expire at the close of annual meeting. Members who wish to have nominations "from the floor" to be considered by the Nominating Committee should submit these names to the Committee now. Ballots for elections will be included in the January, 1973 Newsletter. (In the coming election only the Secretary and Treasurer will be up for election — all other officers and Governing Board members automatically serve for another year).

Linda Tauber, Secretary

EDITORIAL

As noted in the report of the Governing Board meeting elsewhere in this issue, a statement of policy was thought useful in regard to the mission of this Newsletter. The title of this publications bespeaks a primary mission, that of disseminating "news" of the Society and its members, activities, plans, and other housekeeping chores which are not worthy of permanence in the pages of a "Journal." The economics of publishing a newsletter make this medium suitable for rapid broadcast of minor items, works in progress, unusual instruments or mechanisms, personal notes concerning members, letters to the editor, illustrations of private collections, and many other similar notes. It was voted to accept classified advertisements with the stipulation that these not be large commercial display ads which would fill space but fail to serve the purpose of a newsletter. Suitable advertisements would be services offered by or to members, instruments for sale, trade, or purchase, and the like. Requests along these lines have already been received.

The Newsletter will undoubtedly evolve with time — more so with the appearance of a formal Journal. It is hoped that the Newsletter will help to provide a ready means of cross-communication among the various disciplines represented by our membership, this having been one of the primary objects in the formation of this Society. Each of us as pure collector, musicologist, curator, performer, manufacturer, or whatever maybe the interest, can contribute a bit of personal expertise to the general fund from which all can take benefit. It will be a purpose of this Newsletter to effect this melding of talent, curiosity, exploration, and discovery. Suggestions from the membership will be welcomed, appreciated, and acknowledged.

Material for the Newsletter is always needed. Up to the present time we have had a large number of articles and items submitted dealing with wind instruments but very little from other fields. It is not the purpose of the Newsletter just to blow — we would also like to bow, pound, scrape, keyboard, resound, and other musical activities.

James M. Swain, Editor

CALL FOR PAPERS

Papers and performances which members may wish to present at the next annual meeting, Boston, Massachusetts, April, 1973 should be considered NOW. The Program Committee needs time to review the tentative offerings and make up a suitable program. For this reason it is necessary that ALL papers, or requests for appearance as performers, be submitted to the Committee by January 15, 1973. To expedite matters these should be sent to:

Mrs. Cynthia Hoover
Division of Musical Instruments
Smithsonian Institution
Washington, D.C. 20560

Abstracts of 200 words or less are suggested.

ANN ARBOR — STEARNS COLLECTION

A letter from Robert A. Warner, Director of the Stearns Collection of Musical Instruments, at the University of Michigan explains that this collection is being moved to new quarters, sometime after the first of next year. Dr. Warner had previously invited the Society to meet in Ann Arbor in 1973 but he explains that in view of this move of the Stearns Collection 1973 might not be the best time to hold the Society's meeting. Along with this move to new quarters, the Stearns Collection is also the recipient of a $12,500 grant by the National Edowment for the Arts for a cataloguing project. This follows a project for the same collection by William Malm who has transferred information about the collection to computer form. In view of the total collection of over 2,500 instruments, it was felt imperative to issue a new catalogue and these projects have this publication as a goal.

COVER PICTURE AND STORY

(On the cover of this Newsletter is a photographic reproduction of a painting by Dr. G. Norman Eddy, Cambridge, Massachusetts. Dr. Eddy has several similar paintings that he has done of various instruments, both in his personal collection and in others. He is now working on a book which will use these paintings as illustrations; some of this in collaboration with F. Neal Eddy, his son, is published below. It is unfortunate that we are not able to render the painting in color — much is lost in the black-and-white illustration).

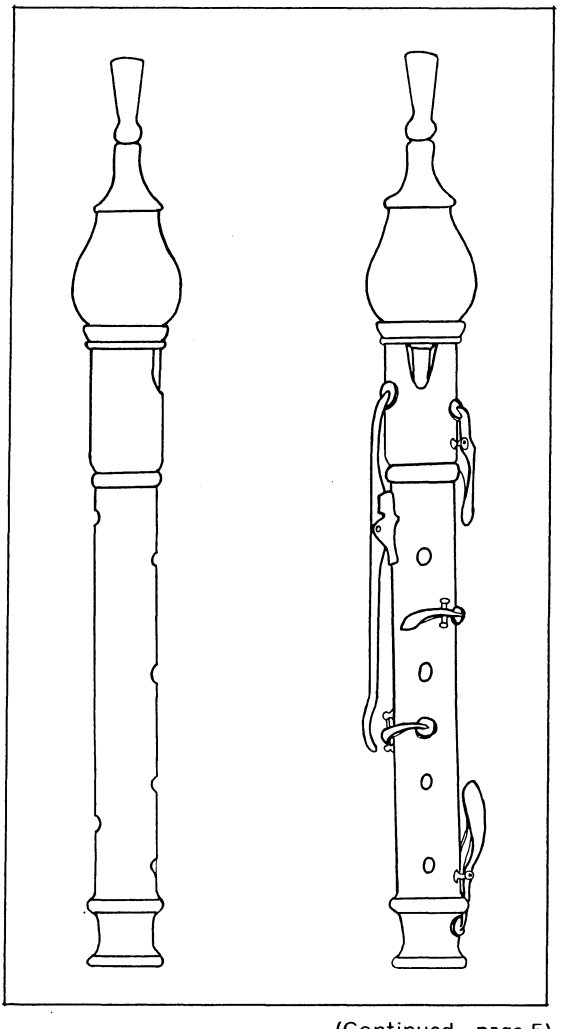
FOUR FLAGEOLETS
by F.N. and G.N. Eddy

Musical instruments, like Darwin's finches, undergo evolutionary growth: the surviving characteristics, in both cases, are those best adapted to the requirements of the prevailing environment. But the cultural forces underlying the natural selection of musical instruments, unlike the singular characteristics of Galapagos topography, are too complex to permit categorical statement of fact. Music is a fuzzy language of feelings; hard evidence, therefore, is sparse. Only music, instruments, and idiosyncratic criticism remain. We seek to understand these cultural factors through documentation of instrument evolution: by selective, life-sized paintings of selected woodwinds and brasses. Painting in oils on masonite, somewhat in trompe l'oeil style, we show detailed construction characteristics, provide evidence of the instruments' acoustic properties, and convey, perhaps, some inkling of their aesthetic charms. Such information, in conjunction with other historical evidence, may serve to clarify the more significant forces that shaped western music.

As an example of the utility of such an approach, consider the flageolet. Its popularity has been largely complementary to that of the recorder: while few are now played, only one-hundred years ago it was the recorder which was forgotten. Why? Let us briefly discuss four flageolets from our own collection for the purpose of suggesting factors leading initially to popularity, but ultimately, to decline.

Consider first the English flageolet so popular throughout the last century. We have illustrated one which is quite typical: turned from rosewood and with inverted conoidal bore, it has a single key at the foot with one thumb hole behind. As may be seen from our painting, there are altogether some seven finger holes of varying size. This particular instrument affords a two-octave range, with a soft, rather reedy tone throughout its compass. As one knowledgeable in acoustics might infer, partly from its narrow bore, it is a softer, more expressive instrument than the recroder. The argument can be made that early nineteenth-century romantic music required instruments having a wide range of expressive nuance. A portable, easy-to-play instrument, the flageolet permitted the amateur to participate in the Romantic rebellion from classic traditions.

The second instrument we discuss was sold some seventy-five years ago through mail-order catalogs. Interchangeable heads allow it to be played either as piccolo or flageolet. The key-work and cylindrical body are essentially that of the old-style piccolo with its six German-silver keys. But it is the upper joints which fascinate: one is that of the conventional piccolo, while the other, with bulbous, pear-shaped barrel joint, has the unmistakable fipple of the flageolet. Of course, the tone varies greatly depending upon whether it is blown through embouchure or beak. One might suppose that this strange hybrid reflected neo-romantic impressionism. Technological improvements were being applied to the flageolet, but not to the recorder. The truth, here, has an element of ironic ignominy: the fipple is but a beginner's crutch, not unlike the single-reed training mouthpieces used by novice oboe and bassoon players. The flageolet was, in fact, already nearing extinction, while the recorder, under the aegis of the Dolmetsch's, and others, was soon to reappear in that twentieth-century renascence of the Baroque.

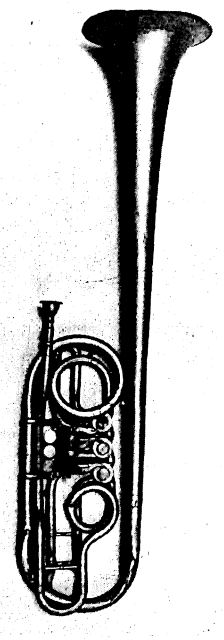


(Continued - page 5)

To understand more clearly the reasons for the flageolet's demise, let us discuss a nineteenth -century French flageolet. Ornamented German-silver ferrules encircle the polished ebony with its long, gracefully swelling barrel-joint. Typical of the French instruments, its fingering differs from that of the English flageolet: it has four finger holes in front, and two thumb holes behind; index and middle fingers cover front holes, so that the awkward ring fingers are replaced by the even more cumbrous thumbs. Our instrument has five keys: three on the upper joint, two below, in a system quite different from that of the six-key piccolo. The seventeenth-century instruments which Pepys so enjoyed were practically identical but for the keywork, as may be seen from our drawing. In any case, both instruments have a facile, whistle-like tone without much strength of character. Samuel Weller, an American teacher of the French flageolet, wrote glowing accounts of both keyed and keyless versions in mid-century. In spite of his and Pepys' earlier enthusiasms, the instrument remained like the saxophone outside the mainstream of serious music. Its greater success in France (as also the case with the early saxophone) is evidence of then prevalent differences in musical taste. Yet even in France, the application of technology, in the form of intricate key-work, was no guarantor of survival when popular music turned from lugubrious part-music to the heady polyphony of jazz.

The forerunners of the flageolet were made in double form in prehistoric times. In the early nineteenth century, Bainbridge introduced the clever, but intricate double flageolet shown in the cover illustration. Our instrument is a typical early Bainbridge design. Dark-stained boxwood is fitted with ivory ferrules, tips and mouthpiece. It has five principal parts: mouthpiece, flaring lead-tube, a large, hollow bulb-like cap (which serves as a plenum for both tubes), and the independent air-columns, each with independent sounding lip that can be silenced with a brass lever which actuates a wind-cutter. The left hand managed four finger-holes and four brass keys, while the right hand contended with six holes and six keys. Mechanical ingenuity was applied to the flageolet during this whole period; the high rate of innovation reflected the instrument's popularity. Meanwhile, the recorder languished. Excepting the old fish-tail keys and those quite essential to the operation of low-pitched instruments, keys did not begin appearing on the recorder until the excellent contemporary (but still not altogether accepted) instruments of von Huehne.

No chronicle is ever quite completed until a moral has been drawn from it. The story of the flageolet is no exception. As suggested by our four examples, there is a latent ambiguity as to which comes first: instrument technology or musical values. Ultimately, it is the latter which dominate, and which caused the steady decline of the flageolet from its zenith in roughly 1830 to its current nadir. The demise of the sweet flageolet — the loss of its grotesque visual beauty, and soft sound — is the price of dynamic musical growth. But perhaps our paintings can prevent the flageolet and other now defunct instruments from being altogether forgotten; more important; they may provide some basis for understanding the complex cultural forces underlying instrumental evolution.



BACK-FIRING HORN

The horn shown here is a Bb tenor "over-the-shoulder" horn made by "F. G. Kaiser" of Cincinnati (Ed. note — This maker is not listed in Langwill). European style rotary valves are noted and it is possible that this was originally manufactured in Europe and imported — or perhaps the valve assembly was imported. A copper plate on the bell reads "Presented to Wm. Jackson by Jacksons Buckeye Band Sept 1st, 1858". The horn was purchased from the Bowen estate in Lancaster, Ohio in 1957.

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The owner of this instrument, Mr. Loyd Davis, 4118 West 73rd Terrace, Prairie Village, Kansas 66208, is seeking further information about the maker. He is also interested in Jacksons Band and he noted that a dissertation (1964) by Robert R. Bruner mentions a traveling instrumental group playing in Cedar Rapids (Iowa) September 2, 1857 for "Major Brown's Monster Colosseum and great American Circus."

F. Loyd Davis

WHAT KEY IS AN INSTRUMENT "IN"?

Stuart-Morgan Vance

(This paper was presented at the Annual Meeting in Washington, D.C. April 1972. It is being published here in full, together with the charts that accompanied the paper, and an addendum submitted by the author following the Washington Meeting. The material provoked considerable comment at the meeting and does not lend itself to abstracting.)

Everybody has heard the expression that an instrument is "in" a certain key: trumpets, cornets and clarinets in Bb, horn in F, flute and piccolo in C or Db; "C" recorders (descant and tenor), "F" recorders (treble and bass), etc. Textbooks and courses on instrumentation usually give some definition equivalent to "The actual pitch produced by the written note C." This, however, says nothing about the instrument, but rather defines a semantic property of the notation; i.e. the pitch represented by any given note.

This definition, which may be called the TRANSPOSITIONAL KEY, is of course useful and necessary as long as there are transposed parts, but some definition characteristic of the instrument that is independent of notation is also needed. Instruments ackowledged to be in a variety of keys all play from 𝄞 (and some 𝄢) parts that are "in C" according to the definition.

What should such a definition of an INTRINSIC KEY try to represent? My contention will be that it should characterize the sameness between instruments that produce the same pitches with the same or similar fingerings by assigning them the same key.

Obviously it is necessary to group instruments into classes for this purpose, considering together only those instruments which have sufficient in common that a notion of sameness can possibly make sense.

Taking the resulting classes one at a time:

KEYBOARD: The major scale produced by the continuous row (white on most modern instruments) of keys. Thus most are in C, the Rockefeller ChapelCarrilon is in Db, etc. The same definition obviously applies to mallet instruments such as xylophones, metallophones etc. with the plates arranged in keyboard fashion, Pleyel chromatic harps, etc. Diatonically tuned harps are obviously "in" the one key; hooked and pedal harps can be set in a number of keys.

FINGERBOARD STRINGS (plucked or bowed): a) one string: the pitch of the open string b) more than one string: the concept does not easily apply; better to give the accordatura.

BRASS: a) natural brass: the key whose harmonic series is approximated by the "natural tones" of the instrument.

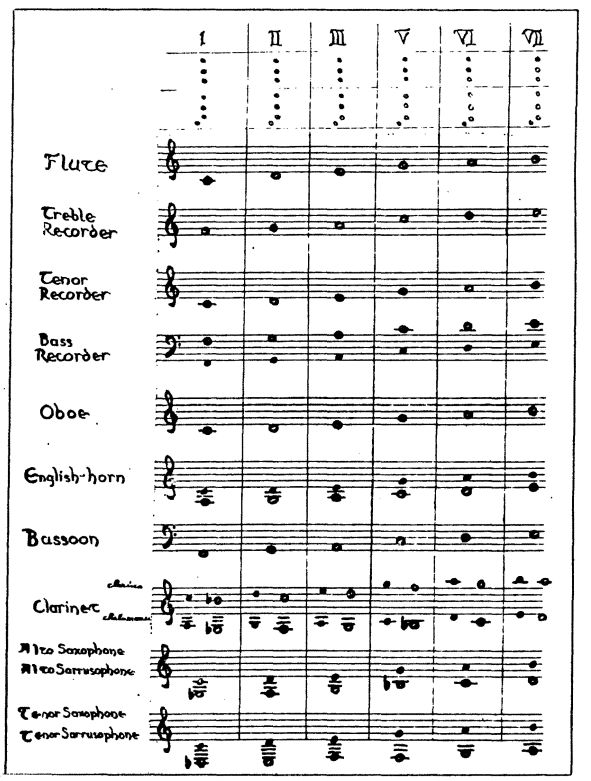
For the other brass the same definition may be applied, if we decide what state of the instrument is to be used. Things like the Sax independent ascending valve system, and French 3rd valve ascending horns complicate matters a little, but two further classes suffice:

b) keyed and combinatorial-valved brass: the instrument without keys or valves being pressed is treated as a natural brass.

y) slide trombones and Sax independent 6-valve system: the shortest tube-length employed is treated as a natural brass.

Cornets and serpents are best treated together with the woodwinds.

Which brings us to woodwinds, which pose the most complicated problem. Please refer to illustration below.



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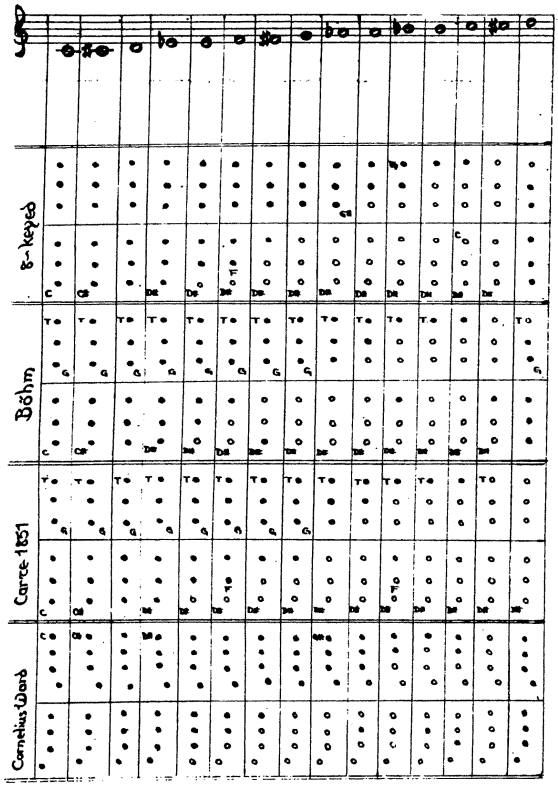
Looking at the actual pitch (the open notes), and seeking groupings by sameness (disregarding octaves), natural groupings can be seen: 1. the flute, the tenor recorder, the oboe. 2. the treble recorder, the bass recorder, the English horn, the bassoon. 3. the clarino register of the clarinet, the tenor saxophone, the tenor sarrusophone. 4. the chalumeau register of the clarinet, the alto saxophone, the alto sarrusophone. How can we characterize each of the groups with a key name, doing as little violence as possible to traditional designations? That is, call group 1 C, 2 F, 3 Bb, and 4 Eb and provide systematically for other possible keys? (and find some excuse for using the clarino register for clarinets).

At first glance, that seems relatively simple; fingering I immediately provides it. But just what is fingering I? On a flute descending to D (as most piccolos) it doesn't even exist. With the extended foot, how many of the right little finger keys are to be included? C#? C? B? Bb if that be provided?

And when we look at a variety of fingering systems, we shall see that fingering II is also of doubtful value, as well as providing and awkward definition.



See above illustration where you will see the 1st octave of four flute systems compared. Looking for similarities among them, you find that expressions such as "7-finger note" "6-finger note" are awkward to interpret. Do you count the thumb? LIttle fingers? The right little finger but not the left little finger? (Also you will notice that the "open" fingering is not much use either, especially if you consider other woodwinds as well). However, if you look at G, you will see that for all systems the right hand is open, and all the holes controlled by the left hand that are not at a distance are closed. No other note is so easily characterized. G is the dominant of the key of C, and the fingerings given are for C flutes. Let us then take this as our definition:

WOODWINDS: The key whose dominant is produced when all the contiguously adjacent holes controlled by the upper hand are closed, the lower hand being open.

If you try this out on the other woodwinds, you will find it produces the grouping listed previously, with the labels as applied then. To provide a unique designation for the clarinet we may state that if more than one mode of vibration be employed on the instrument, the designation for the instrument as a whole will come from that mode which has exactly 1 non-terminal node.

If we apply our intrinsic key definitions to the written note instead of pitch produced, we obtain what may be called the FINGERING KEY. (Alternative name: TABLATURE KEY): This is familiar to recorder players in the expressions "C fingerings" and "F fingerings." It may also be defined as the written note corresponding to the INTRINSIC KEY. It maps the written note onto the instrument, and thus in effect defines staff notation as a tablature for the instrument, whence the alternative name.

The three keys are not mutually independent, given any two, the third may be found from the chart below.

FINGERING KEY as a function of INTRINSIC KEY and TRANSPOSITIONAL KEY

TRANSPOSITIONAL KEY \ INTRINSIC KEY	G♭	D♭	A♭	E♭	B♭	F	C	G	D	A	E	B
G♭	C	G	D	A	E	B	G♭	D♭	A♭	E♭	B♭	F
D♭	F	C	G	D	A	E	B	G♭	D♭	A♭	E♭	B♭
A♭	B♭	F	C	G	D	A	E	B	G♭	D♭	A♭	E♭
E♭	E♭	B♭	F	C	G	D	A	E	B	G♭	D♭	A♭
B♭	A♭	E♭	B♭	F	C	G	D	A	E	B	G♭	D♭
F	D♭	A♭	E♭	B♭	F	C	G	D	A	E	B	G♭
C	G♭	D♭	A♭	E♭	B♭	F	C	G	D	A	E	B
G	B	G♭	D♭	A♭	E♭	B♭	F	C	G	D	A	E
D	E	B	G♭	D♭	A♭	E♭	B♭	F	C	G	D	A
A	A	E	B	G♭	D♭	A♭	E♭	B♭	F	C	G	D
E	D	A	E	B	G♭	D♭	A♭	E♭	B♭	F	C	G
B	G	D	A	E	B	G♭	D♭	A♭	E♭	B♭	F	C

ADDENDUM

The stringed instruments, both keyboard and otherwise, perhaps should not be considered as having an INTRINSIC KEY, as there is nothing really intrinsic to the instrument about the pitches its strings are tuned to. We may perhaps speak of the key to which an instrument has been tuned, when that is applicable.

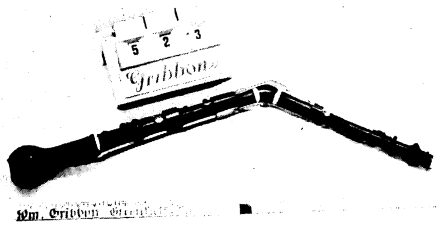
The case of simple (unmechanized) diatonic woodwind, such as one-keyed and keyless flutes, and the similar forms of the other woodwind instruments presents a more interesting problem. Of course, the woodwind definition of INTRINSIC KEY given in the text of this paper can be applied to them equally as well as to modern chromatic instruments. However, these simple instruments are usually based on a particular diatonic scale, which has at least equal validity as the INTRINSIC KEY of the instrument, and this does not always agree with the rule. Thus, the usual one-keyed Baroque flute is in C according to the INTRINSIC KEY definition, but it is based on a diatonic scale of D major. We may therefore wish to recognize two kinds of INTRINSIC KEY for woodwinds, a NOMINAL one according to the definition in the text of this paper, applicable to all woodwinds; and a NATURAL KEY for the diatonic woodwinds, but not generally applicable to modern chromatic woodwinds. As far as relating similarities in fingering, the NOMINAL KEY is more useful; as far as representing the facility in various (concert pitch) keys, the NATURAL KEY (where applicable) is more useful.

COLLECTION INDEX

Shown in upper right is a sample card from the collection index of William E. Gribbon, Greenfield, Massachusetts. Information on this card is typed at the top and a photograph of the instrument is pasted below. The card is then folded and filed with other similar cards. When properly folded, the name of the instrument, and the collection number, remain visible projecting above. It is easy to find instruments by name or number, and when the folded card is withdrawn from the file, all information is readily at hand, including a photograph.

ENGLISH HORN 523

Acquired: Vermont, Barton: James Cagney, value $800.
Measurements: Length, top section
" bottom section
General condition: C-playable, needs cleaning
Number of keys upper joint:
lower " :
Acquired: 1972, March, by W. E. Gribbon
other data enter here - this card can be re-inserted in typewriter with photo attached, for added info.



FLUTE CONGRESS

Word from Mark Thomas, Vice-President of W. T. Armstrong Co., is that a National Flute Congress will be held August 10-11, 1973 in Anaheim, California. An ad hoc committee (including some members from this Society) has been formed to arrange a program. We have seen such meetings for other instrumentalists — now the flutists will have theirs.

ADDRESS:

For future reference the following officers, editor, etc. are listed together with addresses. A complete membership list with addresses and a brief note as to field of interest will be issued with the next Newsletter but if correspondence is desired before then this may be helpful

President
Robert M. Rosenbaum, M.D.
154 South Morris Lane
Scarsdale, New York 10583

Secretary
Ms Linda Tauber
86 Hamilton Avenue
Yonkers, New York 10705

Treasurer and Newsletter Editor
James M. Swain, M.D.
P.O. Box 351
Lake Charles, Louisiana 70601

Program Chairwoman
Mrs. Cynthia Hoover
Division of Musical Instruments
Smithsonian Institution
Washington, D. C. 20560