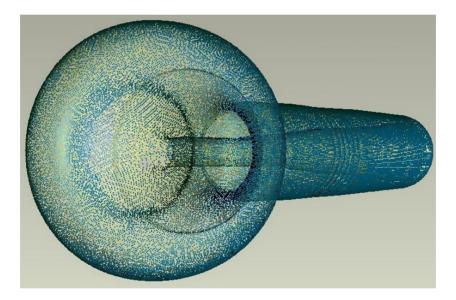
Al Cass Mid Century Modern Brass Instrument Mouthpiece Design

It's true, the average person, who has never attempted to, or been formally trained on how to play a brasswind instrument, has no realization and does not understand, at least at first, that it is the mouthpiece and not the instrument which is most paramount to the final out-come. Of course both are required in order to achieve the desired end result. However if there are problems, it is likely that it is the mouthpiece which is at fault, not the instrument.

Mouthpieces are serious business for those that need them, especially those who perform live, at the very top level, on a daily basis, the proper mouthpiece is a vital key to success. Thus, most professional brasswind musicians will admit with a is the instrument secondary the smile. to mouthpiece. Musicians may exchange instruments with each other easily enough with the possibility of a similar result, but not the case with swapping a mouthpiece because the mouthpiece is very personal to the musician using it. Exchanging a mouthpiece without experience with that mouthpiece, will likely have detrimental results, for the mouthpiece is the

link between flesh and metal, triggered by the airflow generated from within the body and soul of the musician, producing what is often thought of or said to be for some thousands of years, the sound of the Gods.

Leonardo Da Vinci once said, "simplicity is the ultimate in sophistication", if this is true then that explains everything we are about to look at.



This book wishes to expose and make known the existence of the "language" of mouthpieces, without scientific explanation, analysis or opinion, rather a direct testimony in pictures, scans and written notes of the maker, who in this case, is considered by many of the top professionals in the field of brass, as one of the very best "artisans" within the industry of mouthpiece consultation, customization, and manufacturing, to be quite possibly, arguably so, the ultimate brass instrument mouthpiece designer. Perhaps this is because Al Cass was a scientific minded performing brass musician.

Most average folks, like myself, will have no clue how to decipher the pages from Al Cass' notebook, but the once "cold war era" top secret notes are interesting to look at and take wonder at the level of sophistication involved in what most folks have until now, previously assumed, that all mouthpieces to be basically the same. The information here should indicate otherwise.

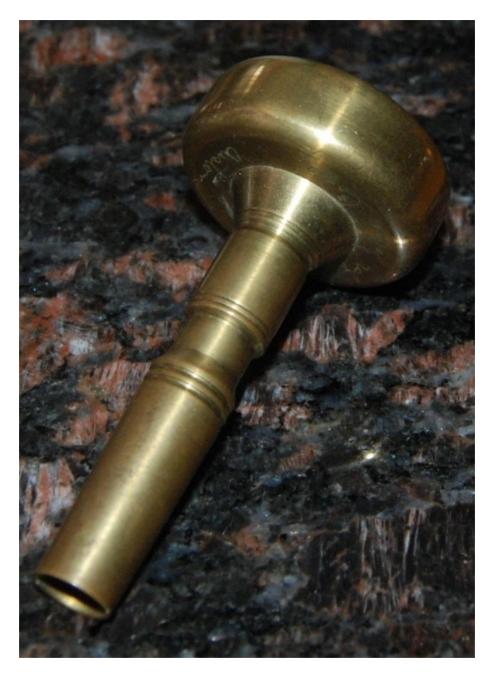
The author hopes this book may also serve as a visual aid in determining the authenticity of an Al Cass mouthpiece, for prices can vary greatly as they are among the most valuable pieces of brass made during mid century modern times, and like most anything else of high value, often faked. As they say, "Caveat Emptor!"

Food for thought. Modifications made to an original Al Cass mouthpiece, altered by most anyone other than Al Cass himself, will have, in most cases, rendered the altered example to paperweight status at which point the mouthpiece in question will likely have little if any value to the musician, at which time may serve only as an object d'art suitable only for display and conversation. It should be noted that Al Cass focused on and catered to professional musicians and accounts for the extreme rarity and value of most models and sizes, especially those original examples which are highly prized and sought after. Most of the musicians who have and use Al Cass mouthpieces in their livelihood, consider these tools of the trade to be priceless.



THe acxm-1-28x5

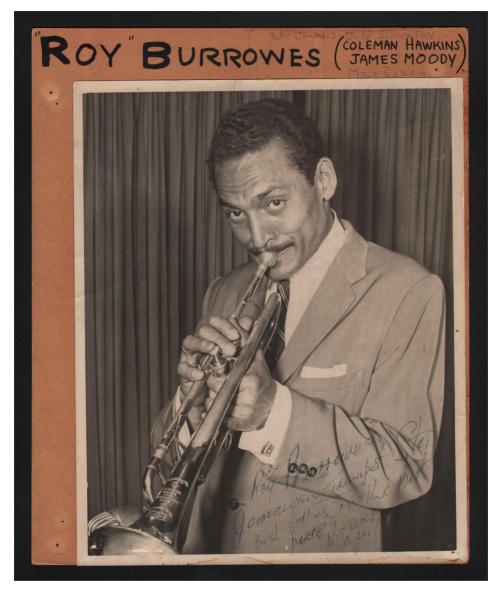




Above: For John Coffey Trombonist Boston Symphony

Al Cass didn't write everything down on paper, but he did take some notes. Here they are! Starting with Louis Armstrong!

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Above: Sharp dressers, Slide Hampton & Cass

Below: Trummy Young does it again!



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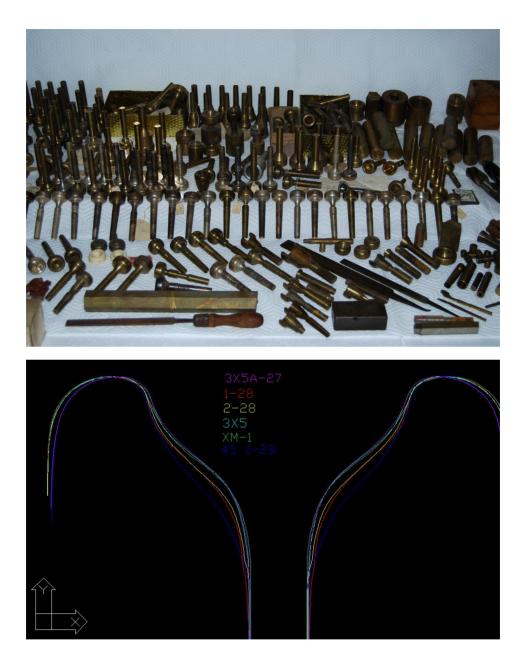
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12/19/71 Trombone Rim to Trumpet Cup - .495 0.D. - 1.550 0.Lg. 3.393 face 11 R Bite 500 Cushion TR Throat - #27 finish Cohet hold 453 Backbore Zse symphony. Trp. reamer Also put frenchdrn reamer in cup 1's from tip TAPEr - 1435 0.0. AT 276

Nome South - 7 " dull . 9/5 black 43 6 think - mild chille SF 412 lle ge-1 bookbove reamer upto line - & thread round of throat opaning , 871 42-2 backbore reaven held back his from nork-G throat round of throat opening .871 42-5 book bore requirer held book 1/6 from mark - 14 throat voused of throat opening . 892 - later change deeper Kgg - blows much better,

MOUTHPIECE CONSULTANTS Al Cass DOUBLING AND STANDARD MOUTHPIECES FOR BRASS INSTRUMENTS 12 SHORT STREET MUSICAL INSTRUMENTS AND OILS HOME TEL. GReenland 3-6063 SHOP TEL, GReenland 3-0992 SJUNE 63 BACKED OFF CENTER DRUL DRUL IN 1" APPROX 1 3D DRILL THRU # 29 DRILL 2 0 3 FLUTE ROUGH REAM 3 3 FLUTE 1 ROUGH REAM 2 FLUTE ROUGH REAL (5) - + FLOTE FINISH REANI TAPER TURU OUTSIDE 6 f ... SEQUENCE NEW BEING USED TO FINISH SHANK AND OF MOUTHPIECE ON SECONDARY OPERATION (THE SHORE STORE)



EAD THIS CAREFULLY BEFORE YOU TRY THIS MOUTHPIECE"

TRUMPET RIM _____ (TROMBONE - DARITONE - BASS TRUMPET - or SIMILAR HORNS) Patent #2917964

TO START:

(1) WITHOUT CHANGING THE PRESENT LAY OF THE MOUTHPIECE AGAINST YOUR LIPS:

Blue "through" this mouthpiece (on your doubling instrument) as though you were blowing a good FORTE from low C to low F# on your trumpet. "AFTER YOUR DREATH", keep your tongue well forward; way out (exaggerated) in the beginning; your tongue should say a low full TAW; this will drop your tongue from the roof of your mouth, thus allowing a larger nr wider stream of air. Feel the air, "on the intake", in your throat, not on the roof of your mouth, with teeth far apart, as possible, and lips losse and open as possible, and corners fairly firm, without changing the natural lay of the mouthpiece on your lips. Then blow.

- (2) DO MUCH SCFT-TONGUEING so the lips will vibrate easier. From here your tongue will find its correct position for you as you begin to produce the sound you want. Keep an open relaxed throat, as you do when you produce a "fat" sound on your trumpet. Keep your tongue well forward when you blow.
- (3) USE A VERY HEAVY STREAM OF AIR:

Blow "THROUGH" this mouthpiece with "AUTHORITY", using as little pressure against the mouthpiece as possible.

- (4) Play only in the register that is comfortable for you. Don't try to extend register (either way) until you have developed a comfortable "PEEL" for it. The upper register is automatic. You will play higher than average. Work from comfortable low tones and gradually develop from there.
- (5) For at least 2 weeks alternate from one horn to the other, allowing more time on your trumpet than you do on your doubling instrument, until you can control both horns equally well.

THIS TAKES A VERY SHORT TIME TO DO, but DON'T try to do it in a few days.

This mouthpiece will help you to achieve the above outline "unconsciously", as you work to produce a full doubling instrument sound. The technique is merely at extension of your present blowing in the low register on your trumpet, without changing your embouchure. Keep that type of feeling in mind while blowing "THROUGHOUT" your doubling instrument.

Use as large a bore instrument as possible.

ALL THIS WILL ALSO GIVE YOU MUCH MORE CONTROL AND ENDERANCE IN YOUR TRUMPET PLAYING.

THANK YOU.

AL CASS







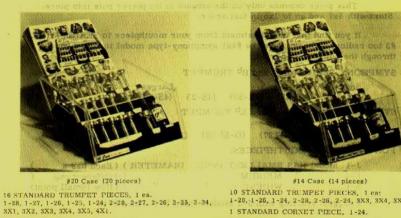
#43 Case (43 pieces) 16 STANDARD TRUMPET PIECES, 1 ea: 1-28, 1-27, 1-26, 1-26, 1-24, 2-28, 2-27, 2-26, 2-25, 2-24, 3X1, 3X2, 3X3, 3X4, 3X5, 4X1. 15 STANDARD CORNET PIECES, 1 ea: 1-28, 1-27, 1-28, 1-26, 1-24, 2-28, 2-27, 2-26, 2-25, 2-24, 3X1, 3X2, 3X3, 3X4, 3X5. 3 STANDARD TROMBONE PIECES, 1 ea: S-1 (large), L-1 (medium), J-1 (small), 5 TRUMPET RIM DOUBLING PIECES, 1 ca: Trumpet to trombone/Baritone/Bass trumpet. Trumpet to French Horn. Trumpet to Mellophone. Trumpet to Alto Horn. Trumpet to Fluegel horn. 4 TROMBONE RIM DOUBLING PIECES, 1 ea: Trombone to Trumpet. Trombone to Cornet/Fluegelhorn. Trombone to Bass Trombone. Trombone to Tuba/Sousaphone List Price \$447.50



#29 Case (29 pieces) 16 STANDARD TRUMPET PIECES, 1 ea: 1-28, 1-27, 1-26, 1-26, 1-24, 2-28, 2-27, 2-26, 2-25, 2-24, 3X1, 3X2, 3X3, 3X4, 3X5, 4X1. 1 STANDARD CORNET PIECE, 1-24. 3 STANDARD TROMBONE PIECES, 1 ea: S-1 (large), L 1 (medium), J-1 (small). 5 TRUMPET RIM DOUBLING PIECES, 1 ea: Trumpet to Trombone/Baritone/Bass Trumpet. Trumpet to French Hora., Trumpet to Mellophone. Trumpet to Alto Hora., Trumpet to Fluegelborn. 4 TROMBONE RIM FOUBLING PIECES, 1 ea:

Trombone to Trumpet. Trombone to Cornet/Fluegelhorn. Trombone to Bass Trombone. Trombone to Tuba/Sousaphone.

List Price \$307.50



- 1 STANDARD CORNET PIECE, 1-24.
- 3 STANDARD TROMBONE PIECES, 1 ea: S 1 (large), L-1 (medium), J-1 (small).
 - List Price \$207.50
- 1-28, 1-26, 1-24, 2-28, 2-26, 2-24, 3X3, 3X4, 3X5, 4X1. 3 STANDARD TROMBONE PIECES, 1 ea: S-1 (large), L-1 (medium), J-1 (small). List Price \$147.50

TO SELECT A STANDARD AL CASS TRUMPET (OR CORNET) MOUTHPIECE

To select your correct piece use this procedure and know where you are at--at all times. You can get as big a sound as you can support, with register, if you find the correct balance or correct pressure you can blow at. This procedure helps you find the correct pressure you wish to blow at, to give you your correct BALANCE between you and your instrument, regardless of which company's instrument you use.

#1 SERIES & #2 SERIES HAVE DIFFERENT THROAT SIZES (small center hole). (1-28 is smallest & 1-24 is largest) #1 SERIES & #2 SERIES HAVE DIFFERENT CUP FLOWS

I recommend every player try 1-28 to start. Then if player wants a DARKER-HEAVIER SOUND: go to 1-27, 1-26, 1-25, 1-24 (in that order) depending on how much register he can support.

If player still has usual problems after series #1, use same procedure with series #2 and go from 2-28, 2-27, 2-26, 2-25, 2-24 (in that order) depending on resistance-sound and register he wants to feel and hear-as to EDGE-DARKNESS and HEAVINESS of SOUND plus REGISTER.

#3 SERIES HAS DIFFERENT CUP DEPTHS (ALL WITH #28 THROATS) ("for the present") (3xl is deepest -- 3x5 is shallowest) (cup flow is also different than #1 & #2)

THIS IS A "SCREAMER" TYPE PIECE for professionals, and, in "Parallel", works for Beginners also.

This piece depends only on the amount of lip player puts into piece. Start with 3xl and go to 3x5 in that order.

If you find that the adjustment from your mouthpiece to SERIES #1, #2, #3 too radical a change, use the #4x1 symphony-type model to carry you through the adjustment period.

SYMPHONY SERIES for C and B^b TRUMPET

 Smallest
 Largest

 (4S-28)
 (4S-27)
 (4S-26)
 (4S-25)
 (4S-24)

SYMPHONY SERIES for D and E^b TRUMPET

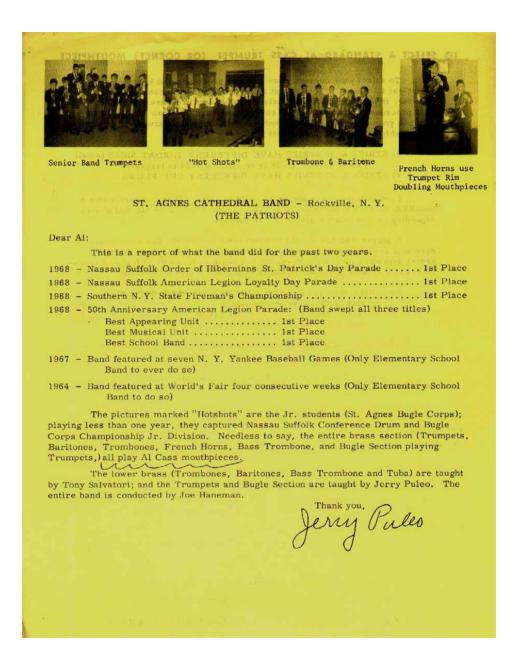
	(D-Eb 28)	(D-E ^b 27)	(D-E ^b 26)	(D-E ^b 25)	(D-E ^b 24)	
1	and the second second				and the second second	

FOR TROMBONE MOUTHPIECES:

J-1	Model	HAS	SMALLEST	INSIDE	DIAMETER) (Each has a)
L-1	11	11	MEDIUM	н.	11	(-) different cup (
S-1	-11		WIDEST	**	11) (flow (Small point)

I suggest starting with J-1 Model - then L-1 - then S-1.

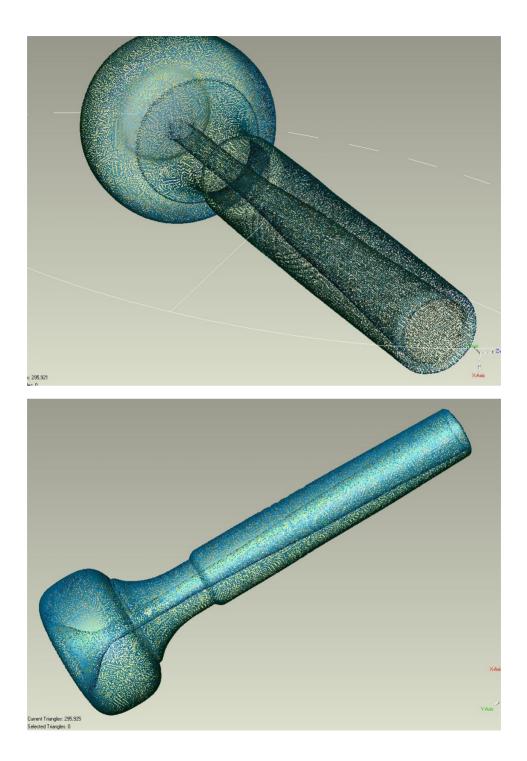
AL CASS Milford, Mass. Call GReenleaf 3-0992 or GReenleaf 3-6083

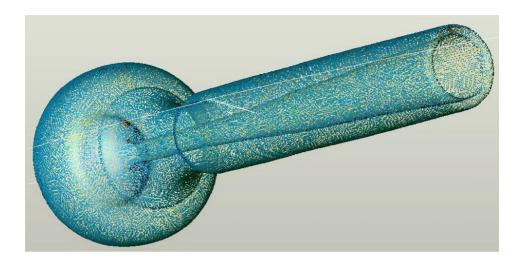


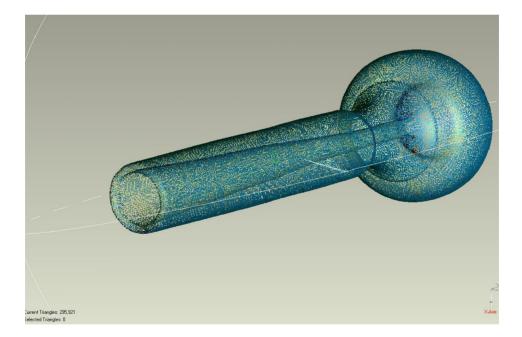
Above: Kids in competition that used Al Cass won awards and medals.



rent Triangles: 295,921 ected Triangles: 0





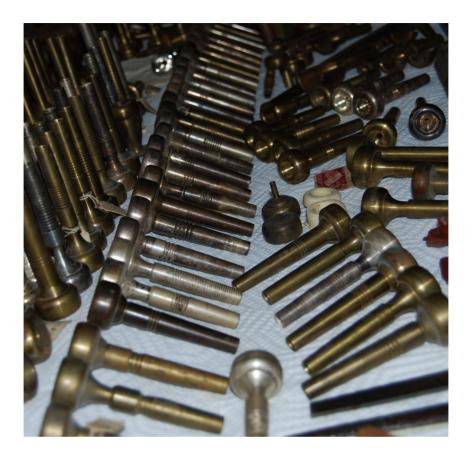






In the garage workshop 10 feet away from the grapes & tomatoes.







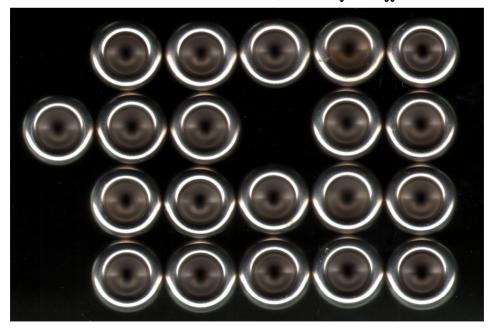


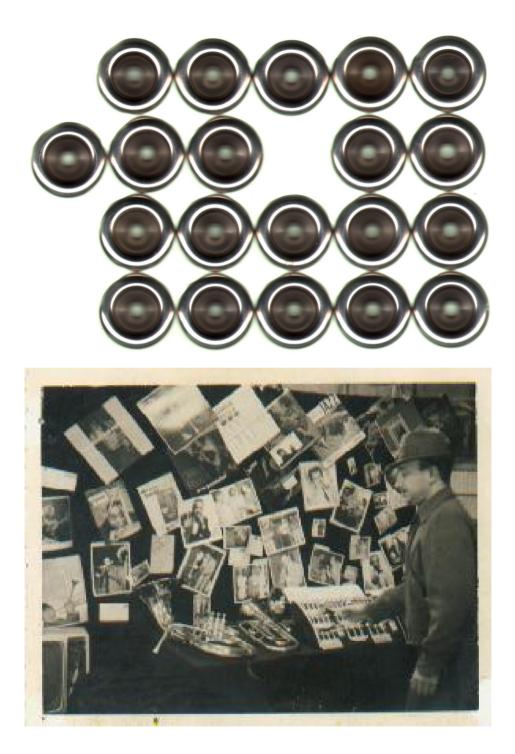
Top row Trumpet 1 series, 2 series, 3 series all 28 throats Middle row Cornet 1 series 2 series 3 series all 28 throat Bottom row trumpet to trombone,mellophone, flugelhorn, alto horn, french horn, trombones T1, T2 & T3, trombone to trumpet, trombone to cornet/flugel, trombone to bass trombone 5 and trombone to tuba.





Above & below : Set of 4s & 4x prololypes





N Eldridde Howie McGhee Dizzy Gillespie Elliott HARRY DUCK Sooker Sweets Edison And Color Basis Edison States Hittie Roy Buck Clayton Mitchell But stant E Cheatham "COLEMED HA Voyce Eddie Mullens Challa promote chang LIONEL HAMPTON Slyvester (Art TANCREDI EAST COMPANY T MOUTH PIECE (DEALERS INVITED) IR SHORT ST MOUTH PIECE (TRANDAD DISCHUTS) MILFORD, MASS. IR SHORT ST CIAST PAID FASTEST TRUMPET PLAYERS IN THE WORLD USE AL CASS MOUTHPIECES THAT BROKE THE EMBOUCHURE BARRIER RUMPET PLAYERS DOUBLE FROMBONE PLANERS DOUBLE RUMPE RIM ROMBONE RIM RUMPE 10eu \$10.3 Y OURSIZE OF FACH POSTAND OTHER DOUBLING PIECES ONLY ONE SIZE OF FACH TO FOLLOW \$12 50 STANDARD PATENT NO. 2.917964 DEALERS INVITED OUTHPIECES STANDARD DISCOUNTS ALABLE CASS INDORSES - APPROVED BY THE BEST IN JAZZ 12 SHORT ST NO SYMPHONY - ACCEPTED NTHUSIASTICALLY BY MUSIC EDUCATORS, MILFORD, MAS

"MASS. MUSIC NEWS" SOME PROBLEMS OF BRASS DOUBLING SOLVED

by Walter M. Smith

the Famous Symphony Trumpet 5 Walter Smith)

I have tried, and some of my students have tried, over a period of about five weeks, a mouthpiece made by Al Cass. This mouthpiece has a standard trumpet rim, a very deep cup, and the stem and back of a trombone or baritone mouthpiece.

We have found it possible to play either trombone or baritone with a good and full tone in all registers, and to return to playing cornet or trumpet *immediately* with no ill effects whatever. The period during which this change was made averaged about two weeks, during and after which the students found that they could continue their study of the trumpet, and at the same time play baritione or trombone in the band.

A REVELATION FOR MUSIC EDUCATORS AND PROFESSIONAL MUSICIANS PLAY WITH TRUMPET RIM PLAY WITH TROMBONE RIM TRUMPET CORNET TENOR TROMBONE TROMBONE New OME BARITONE TRUMPET Model PIECE No. 801 CORNET and FLUEGELHORN BASS TRUMPET/ BASS TROMBONE MELLOPHONE TUBA and SOUSAPHONE FRENCH HORN AL TOHORN (UPRIGHT) FLUEGELHORN ONLY ONE SIZE OF EACH DOUBLING PIECE EACH PIECE IS A SEPARATE PIECE FITTING ONLY ONE HORN TROMBONE RIM \$12.50 ea. TRUMPET RIM \$10.00 ea. PATENT NO. 2, 917, 964 TOO MANY TRUMPET PLAYERS? TOO MANY TROMBONE PLAYERS? CAN'T START TUBA OR SOUSAPHONE PLAYERS IN GRADE OR JUNIOR HIGH SCHOOL BECAUSE STUDENTS ARE TOO SMALL? EVERY band director CAN now have an UNLIMITED choice of instruments for his particular choice of tonal color. Students may double without any problems or injury to their first or MAIN INSTRUMENT EMBOUCHURE. A concert or marching band need never be without the necessary instruments. A student now has a greater chance to be a more versatile musician by playing more than one instrument, EVER INCREASING HIS MUSICAL KNOWLEDGE. With check or M. O. all orders Postpaid. -NO C. O. D. Every Dealer and Music Educator should have a complete set of AL CASS MOUTHPIECES. He will become the next thing to a Custom Mouthpiece fitter. AL CASS Milford, Mass. Call Call Area Code 617 - 473-0992 - 473-6083



Stan Kenton Mellophone Mouthpiece Doubler above













port	September 14, 1968
port.	Las Vegas, Nevada

Dear AI:

Jack Dougherty is still using your trumpet piece and is very satisfied. Dating back to 1940 he has played with the following bands: Jan Savitt, Jan Garber, Jimmy Dorsey, Tommy Dorsey, Ziggy Elman, Ray Noble, Horace Heidt, and in Las Vegas with Garwood Van, Jack Cathcart, Nat Brandwyn and Bill Reddie. He is very happy to endorse your piece.

As for myself, up to December, 1967, I have played 1st trombone and horn with Bill Reddie for 8 years at the Dunes Hotel in Las Vegas. Bill Reddie received a 1968 Grammy Award nomination for his arrangement of West Side Story for the Buddy Rich Orchestra. He was extremely pleased to have the horn color added to the band at very little added cost, and used it extensively in his arrangements of the Casino de Paris show and record dates.

As a result of your trombone to horn piece, I was able to increase my income \$2000-\$3000 per year. I formed and play horn with the Nevada Brass Quintet and the Young Audiences Woodwind Quintet, 4th horn with the Las Vegas Symphony, horn on record dates (Tommy Vig Sound of the Seventies, other horns were top Hollywood Studio players), and worked with top horn players such as Vince de Rosa and others in local concerts.

Have also taught French Horn at Nevada Southern University. All of this without any loss or discomfort re "Trombone Chops". I have what could be termed a normal embouchure and no special adjustment was required. The trombone piece is the best I have ever played on, and would recommend it for any type of work The trombone to trumpet piece also "works" and a range up to trumpet high "C" was achieved very quickly.

You have my permission to quote any of the foregoing.

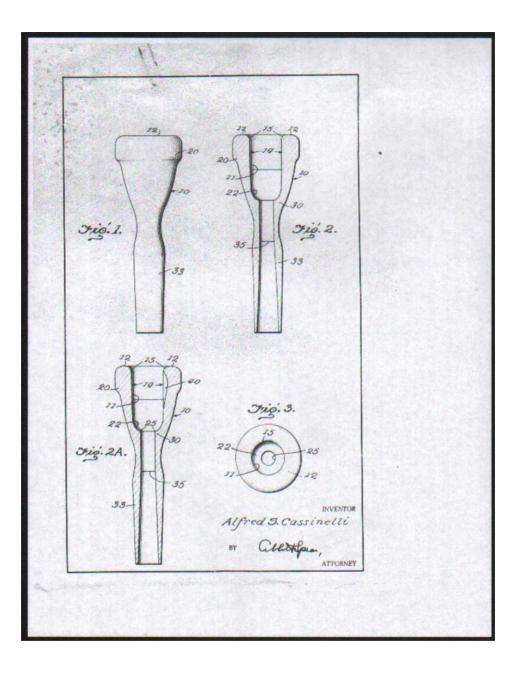
3628D Lyon Drive Las Vegas, Nevada 89103 ph #702-734-6987

Sincerely, Juig Echo Ilaig tishow



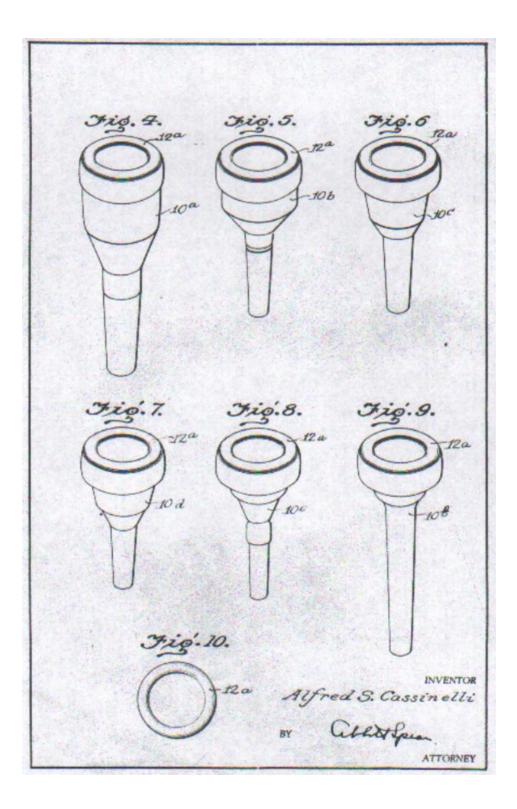












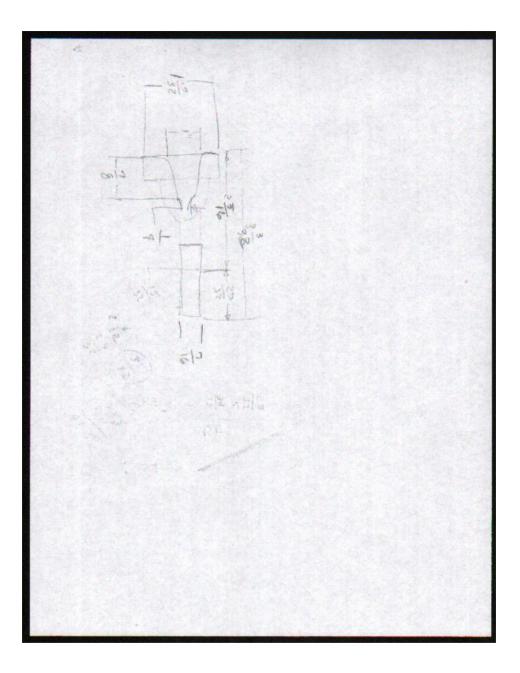
Jig. 12. Jig. 13. Fig.11. -12.6 126 121 110 na 13a Fig. 14. Fig. 15. 12.1 12 6 Fig. 16. Ma 150 121 INVENTOR Alfred S. Cassinelli all Aprin. BY ATTORNEY



Above: Trombone rim to Trumpet doubler, note the shallow cup.



Trombone to Tuba Sousaphone



The inner rim, bite, or cup diameter sizes

1 42 13 64 64 64

cover 90% of the trumpet mouthpieces being used. One of these sizes should correspond with your trumpet mouthpiece size. In ordering one mouthpiece, be sure to state one of these sizes.

THE MUSIC EDUCATOR SHOULD HAVE THE THREE SIZES ON HAND TO TAKE CARE OF ANY TRUMPET PLAYER WHO WANTS TO DOUBLE.

(Sent Postaeld or C.O.D.)

Other doubling mouthpieces to follow

A Revelation for **Music Educators and** Professional Musicians Play

-

TROMBONE

BARITONE **BASS TRUMPET** MELLOPHONE

Same-Rim.

Using Same-Rim You Now Use To Play Trumpet





Trombone Baritone **Bass Trumpet**

Trumpet

Your Present Mouthpiece)

Also French Horn las advertised in down boat)

FINALLY !!! TO ALL TRUMPET PLAYERS

Doubling is possible without embouchure problems using an AI Cass trumpet rim - trombonebaritone-bass trumpet mouthpiece. IPat Pend I

Use the same size rim you now use to play trumpet, for these other horns.



DON ELLIOTT-"Al's new invention now enables me to play my mellophone, trumpet, and valve trombone using the same size rim without embouchure problems. I have been waiting for this ever since my professional doubling career began



DIZZY GILLESPIE-"Al's new samer in principle wally makes it, TOO MUCH!"

ARMAND VORCE, Trumpet & Consuccor, Extra Trumpet Duston Symahony, an Canductor's Symposium-'I now can play mombone, beritone, past trumpet, each having full range and sound, using Al's moumplece."

JOHN COFFEY, Trambonist, Ten Years Baston Symphony, Four Years Cleveland Symphony, New York Concert Orchestraendorse this mouthpiece completely for transpet players who wish to double."

41 42 43 Inner-Rim or Cup Diameter Sizes 64 64 64

AL CASS, 12 Short St., Milford, Mass. Made by General Machine Products

Tremendous success at Music Educators' Convention at Springfield, Mass., 1958. Demonstrated, tested by Music Educators, approved, and fully accepted.

TOO MANY **TRUMPET PLAYERS?**

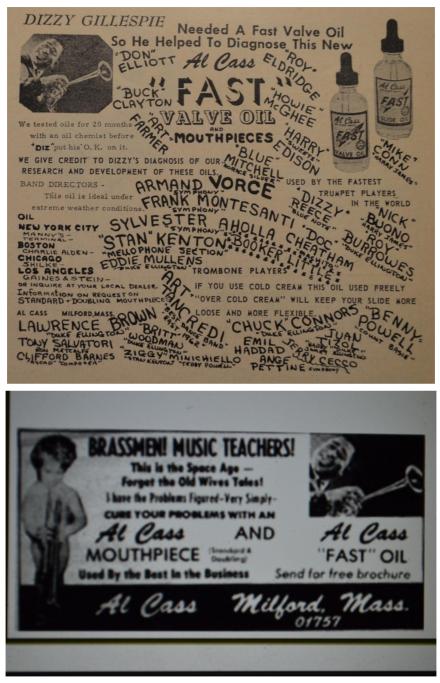
EVERY band director now can have as many TROM-BONE, BARITONE, BASS TRUMPET, or MELLOPHONE PLAYERS in his band as he has trumpet players.

Students may double without any problems or injury to their trumpet playing. A concert or marching band need never be without the correct number of trombones, baritones, bass trumpets, or mellophones.

The student now has a chance to be a more versatile musician by playing more than one instrument; EVER IN-CREASING HIS MUSICAL KNOWLEDGE.



Set of doublers



The oil was created at the request of Dizzy Gillespie and made to his specifications. Diz liked to see his pictures in the advertisements. The 3 year old boy in the ad is Al's son Stephen whose picture was used in every ad, invoice and letterhead since the picture was taken in 1971.



Al Cass with Maynard Ferguson brass section.(above. Earth Wind & Fire (below)The 3 series "screamer" below is typical of the mouthpiece they used.





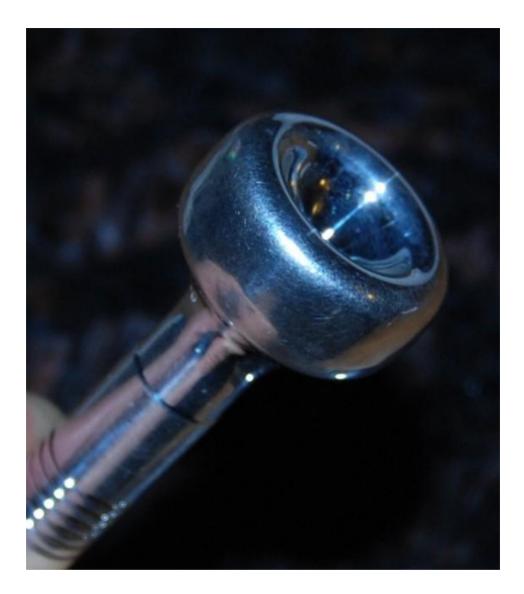


Above: original old stock 3x5

The 3x7 below was never released in the catalog. Here is an example the author has manufactured and released in 2011. This is the first official release of the 3x7.Original 3x5 users wonder why this Piece was not made available to them.









Above: John Birks "Dizzy" Gillespie, Al Cass and Harry "Sweets" Edison



Above: Chuck Connors Duke Ellington



Above: Trummy Young Louis Armstrong



Above: Tony Salvatory Warren Covington



Above: Cass, Gillespie & Dr. Armond Vorce *Vorce was a demonstrator &i tester for the Symphonics. Below Al Cass booth, at the Trumpet Guild.





I'll stand over here to see how it sounds from where you were standing.



Hmmm, very interesting.



Some pics from the brochure and other consultation moments.



I don't know, take off your

shades and I can see what's going on.



Above: Jesse Drake Cab Calloway



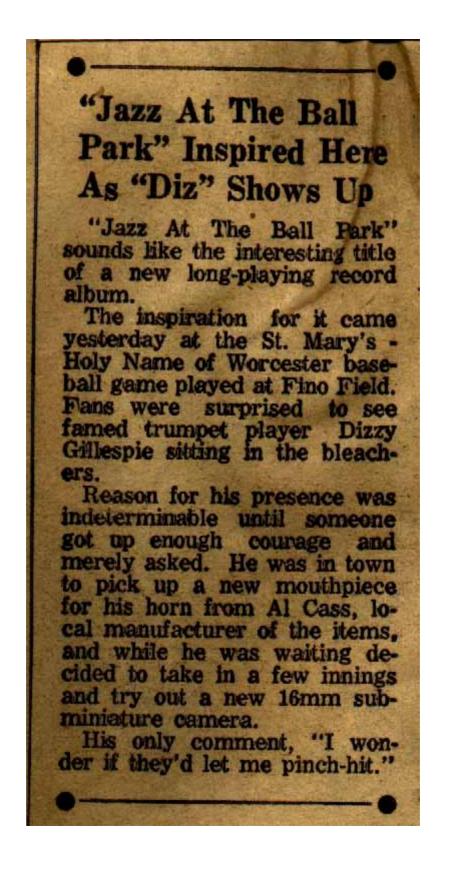




Below: John Donnelly 1st trumpet Maynard Ferguson



Below: Al's "Cold War Era" Jazz painting "THE RED MENACE!"





DIzzy Gillespie and his AI Cass in Down Beat Magazine Is that AI Cass #43 or #47?



The two pieces shown above the diz notes. #43 and #47.



Alfred S. Cassinelli (Al Cass) 1985



Diamond shape musician art by AI Cass

Al Cass MOUTHPIECE CONSULTANT Milford, Mass. AND DIAGNOSTICIAN 01757 PATENTED DOUBLING AND STANDARD MOUTHPIECES U. S. A. FOR BRASS WIND INSTRUMENTS VALVE AND SLIDE OIL TEL. 473-6083 AREA CODE 617 Fred has given me full ownership of his al Cass mouth piece business. all rights and all that goes with it. Mary I. Cassinelle 4/19/89 Alfred S. Cassinelli 4/19/89



Zoe and Mary, granddaughter and sister of Alfred S. Cassinelli,

As Alfred S. Cassinelli, "Fred", would want you to know, "If not for my sister Mary, Al Cass would not exist. All intellectual properties were transferred to Mary prior to his death. (see transfer above photo)