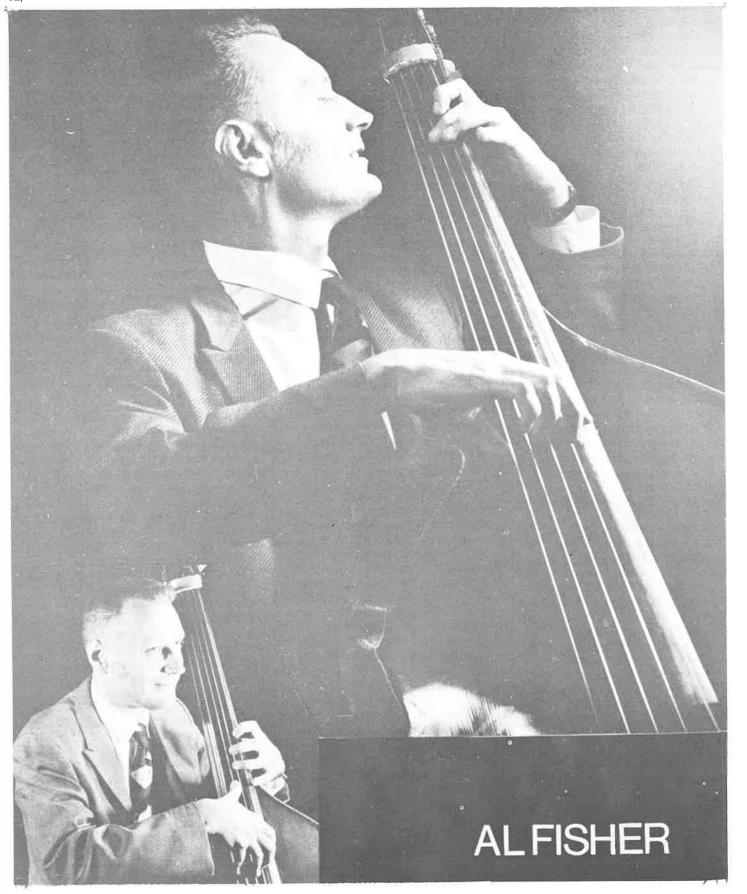


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Publication of the International Institute for the String Bass.



Subsequent correspondence with Mr. Gardener revealed this to be correct. In very thoughtful detailed letters he described the wood he had obtained but said he had never desired to build a bass and had never cut any wood for that purpose. I then decided to visit Oregon and see what could be done.

It turned out that Mr. Gardener was a native of the same region, whose father had come from northern Italy, and he had had a lifelong interest in the ancient art of Cremona. Having retired from ranching, surveying, and many types of work in lumbering operations, Mr. Gardener now builds violins of exquisite beauty which are in great demand. A glance at one of his instruments is a revelation of the true art of the master as it must have appeared in the old days.

Never pleased with wood obtained from commercial sources,
Mr. Gardener put to work his own familiarity with the local forest and reasoned that certain nearby areas should yield suitable wood. He went by the criteria of altitude and prevailing climatic conditions, which would cause the wood to have the desired qualities. This was a study of many years, not describable in one sentence.

Mr. Gardener interested his friend Mr. Tepper in this search and together they located an area in which they found some fine maple trees and another with some spruce. These are principally coniferous forests and are a source of the largest douglas firs, as well as white firs, ponderosa pine, white pine, sugar pine, incense cedar, and other large trees. The sitka spruce is not found here, but some good specimens of engelmann spruce. which has a softer, whiter wood, are found. The maples are not numerous but occur occasionally among the douglas firs, and are rather gnarled and misshapen in contrast to the tall straight conifers.

The maples cling to the mountainsides, which are not only rocky and steep, but shrouded in a perpetual foggy drizzle. One mountainside looks a lot like another, to me, but not to Mr. Tepper. He has located hundreds

of big trees and can find them again. He and Mr. Gardener, from long study, know how to tell the health of a tree, or how the wood will look, the curly grain, etc. from the outside. They have found some maples with a dramatically beautiful grain and the most desirable acoustical texture.

Originally Mr. Tepper went to the tree with a small chain saw and cut it up on the spot and hauled the pieces out. This was after purchasing it from the U.S. Government, which is a story in itself. Now this expanding operation will involve a sawmill which he has been assembling this year, having somehow singlehandedly bought, loaded, transported, unloaded and set up a band-saw weighing several tons.

As a result of my visit, Mr. Tepper has been working on the problem of wood for the bass, and he has some that he says looks very good. His word is reliable. Having made one instrument from his wood, it is my personal opinion that it is definitely successful. Specimens will differ in respect to curl and freedom from flaws, and I have a continuing interest in what will come from this source.

One of the most serious and recognized problems in bass-making is, where to get the wood? Mr. Tepper and Mr. Gardener, through their remarkable efforts, have gone quite a way toward providing a supply. Not only have they located and cut the trees, but they have undertaken the all-important task of the initial seasoning control of the wood. They care for the wood during the crucial first months, then it can dry to maturity without cracking.

One can make a bass from many types of woods, ranging from ordinary lumber to the rarest of Tyrolean vintages. There always will be problems of some sort. We suggest that serious builders write to Mr. Tepper and see what he has available. You will probably be more than pleased with this wood, and it is our privilege that someone has gone to the huge trouble to get it, for almost negligible compensation.

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UNACCOMPANIED PIZZICATO STRING BASS by Al Fisher

I. What It Is

A. The Instrument

Solo pizzicato string bass, without accompaniment, is a different way of life. You play the melody and chords at the same time, adding runs, arpeggios, trills, pedal point, etc. for variety. Along these lines, the bass possesses great potential as a solo instrument.

My bass has a fifth string — a C added above the G string. This adds versatility as a solo instrument, putting the melody notes high enough to be clearly audible, and making possible fuller chords. The high C string is in fact the most important of the five strings.

Since you will spend more time playing higher notes when you have the added string, your average note will be not too far from the pitch of the open C string. Here is a surprising fact: A bass of the standard 3/4 size resonates ideally at the frequency of that C. This is explained in the November, 1962 issue of Scientific American¹. So, you see, with the added C string the bass really comes into its own as a solo instrument. Incidentally, I do not use amplification.

¹Carleen Maley Hutchins. "The Physics of Violins." SCIENTIFIC AMERICAN, Vol. 207 (Nov. 1962), pp 78-93. I owe a debt of gratitude to Gary Karr, who was first to point out that I needed the clarity of steel strings. Once I had changed to them, chords and in fact whole compositions could be played which would have been too muddysounding with gut strings. The lowest three strings should be of the steel rope core type for maximum clarity and distinctness. Notes played on the remaining two strings are high enough to be distinct anyway, and hence you can select these strings for mellowness. My G string has a solid steel core and the C is gut. Surprisingly, there is more compatibility among these five strings than if all were of any one type.

In playing on open strings, the damping effect from your left hand finger tips is absent, giving these notes comparatively too hard and sustained a sound. The open strings also tend to vibrate sympathetically when a like note is played on another string. You can correct these disparities by improvising a damper of felt, rubber, etc. to fasten against the strings at the nut end.

To reduce the arduousness of playing, I find a logarithmically curved fingerboard to be indispensable. This puts the strings at an optimum distance from the fingerboard along its length. They are close enough to minimize left hand effort, yet far enough not to snap against the fingerboard. The August, 1970 issue of the Bass Sound Post explains how to make such a fingerboard, and I will offer any additional help you may need.

Adding to playing dexterity are two notches I have carved into my fingerboard. These locate the left thumb so that the index finger of the extended left hand will land on the G (about 2/3 down the C string) and C (3/4 down the C string). Once the hand has located one of these notes, those around them also can be quickly found. The notches thus greatly increase the range of notes to which you can accurately jump. You will not have to work up to them gradually nor test them lightly before playing.

Your bridge should be adjustable so that, again, you do not exert too much left hand effort or snap the strings against the fingerboard. I adjust my bridge nearly every day to maintain the optimum condition in view of temperature and humidity's inevitable distortions of the instrument. You can make a gage to insert between the D string, say, and the fingerboard, somewhere near the middle of its length to obtain consistency in your adjustment.

You should carefully tailor your bridge so that all strings are at their optimum distances from the fingerboard at the same bridge setting. The C string, being gut, will be the farthest away, and the G string will probably be the closest. Under this condition, your plucking fingers may hit the C string when swinging in to pluck the G string; hence the bridge should locate the C string farthest away from the G string than the G, D, A, and E strings are from each other.

Because pizzicato bass playing can get quite rambunctious, your instrument may walk away from you at times. To prevent this, I recommend the Sta-Set Pin Rest, made by W. E. Hedderich, and available through catalogs. It provides an effective friction grip to the floor.

B. Tuning

The addition of the fifth string makes the Pythagorean comma a noticeable problem in tuning. That is, if you tune the strings to each other in perfect fourths, the deviation between this fourth and the fourth of the tempered scale will cause an unacceptable discrepancy in pitch between your highest and lowest strings. The E will be too high compared to the C. In the absence of a piano, tune first to a perfect fourth using harmonics in the third position, and then let your ear guide you in enlarging this slightly to obtain the tempered fourth.

As an overall check on tuning, you can compare the top and bottom strings as follows: On the C string, find the harmonic E with your second finger in about 2nd position. Now press with this finger to play E on the C string,

moving up and down slightly until this E is exactly in tune with the harmonic E. Then advance your second finger downward (toward the peg) half of a fingernail width to compensate for the fact that the harmonic E you found is not a tempered E. Play this new, tempered E on the C string, immediately followed by the octave harmonic of the E string. The latter can be obtained by pressing the edge of your right thumb against the midpoint of the E string as you pluck it. The E thus obtained on the E string should be in tune with the E you obtained on the C string.

All of the above-described tuning and checking can be done pizzicato.

AND PERFORMERS UNCLASSI



C. Playing Fundamentals

You now will be inspired by the brilliance and solo ease of your 5-string bass.

You can use any standard left hand technique up to $3\frac{1}{2}$ position. From $3\frac{1}{2}$ to $5\frac{1}{2}$ position, all four fingers should be used individually so that not three but four notes, plus the open string, are playable in each position. Above this, I dispense with the left hand fourth finger, and bring the left thumb into play when convenient to do so.

In the lower positions, the left thumb can be brought around to stop notes on the E string in the manner of a guitarist. The chin, too, can be trained to press the A and E strings to the fingerboard. These techniques increase the fullness of chords that can be played.

Most important in forming chords is the contribution of the *right* thumb. Simply bring your right hand up to where the thumb can stop one of the strings of the chord, with the right hand fingers pointing downward to pluck the strings.

And don't shun open strings in obtaining fuller chords. Open strings are indispensable in fast playing, too, for your left hand can shift while the open string is being plucked. The lower open strings also can provide an effortless pedal point.

Your right hand fingers get no rest. Establish the habit of using all four fingers. In this way, you can pluck chords of up to four notes, while a five-note chord is plucked by sweeping the fingers across all of the strings.

Normally, the first and second fingers of your right hand will spend most of the time on the higher strings, while your third and fourth fingers help with the lowest notes of the chord or passage. Your hand will learn to alternate two or more fingers in runs, arpeggios, trills, and tremolo.

You will be amazed at the playing speeds attainable when the above procedures are followed. Speeds have

been timed at up to eleven notes per second.

D. Repertory

It should be evident from the foregoing that the string bass is indeed an effective pizzicato instrument melodically and harmonically, as well as rhythmically.

Though the range reaches four octaves, unfortunately only about two octaves can normally be spanned in any one chord. This should be remembered in composing and transcribing for the instrument.

For existing music that can be played, one's first thought would probably be guitar music. This can be made to work if chords are modified here and there because of the above problem.

Remember that the guitar's sixth string and smaller size relative to the hand give it chording capabilities slightly beyond the string bass.

Lute music can be quite effective, and requires less modification. Many selections in the delightful 7-volume set "Der Lautenist," compiled by Walter Gerwig¹, can be played with no modification.

Keyboard music requires more extensive changing. Notes must be left out of chords and the range compressed. Surprisingly, Bach is very difficult to transcribe as its perfection does not lend itself to such manipulation.

The music of the Romantics fares much better, though admittedly only after challenging one's ability to transcribe. The Lassan movement of Liszt's Hungarian Rhapsody II and Chopin's Revolutionary Etude (transposed to A minor) are two examples.

Also in my repertory are two popular songs, National Emblem March, and Flight of the Bumble Bee, proving the versatility of the instrument.

1Walter Gerwig, DER LAUTENIST:
ALTE UND NEUE MUSIK FUR DAS
SOLOSPIEL (Berlin, Verlag Robert
Lienau). Available through C. F. Peters
Corp.

But the greatest delight is to compose for the instrument. Here you can take full advantage of the bass's unique resources — its soul, its tart sound, its breath-taking speed, its powerful rhythmic drive, and your intimate control over the instrument's pitch, tempo, loudness, and tone.

Don't be surprised if the audience tells you that your pieces composed for the bass come across the best of all. This is a tribute not only to you but to the special qualities of the instrument.

II. Conquest of Technique

A. Tactical

Except for shoes and socks, have nothing on but shorts or pajamas. Have a wet wash cloth handy to wipe your face. Wear a towel around your middle to prevent perspiration from damaging your bass. Pin a towel around your neck so that it drapes down your back to catch the perspiration. A towel tied around your head will also help absorb perspiration. A piece of old towel inside your mouth will prevent you from damaging your teeth as you grit them for the difficult passages.

You are now ready to become one with your instrument. You can really work out without fear of damage. (I'm not called the mad bass player for nothing.) The last two items, above, are optional, and any others may be dispensed with if your room is cool.

Pizzicato bass is a whole different ball game from arco playing. Every day will seem like a hot day if you practice properly. I practice four hours a day, and do all of my practicing and performing standing up. Standing is important for "getting around" your instrument, and puts more life into your playing.

In practicing, remember that there is no substitute for repeating a piece many times. I require 100 to 300 repetitions in learning a piece. I recommend a metronome to force the increase in speed of the piece you are learning. Each day, work at a speed

10% above the previous day's speed for that piece. At each new speed, repeat until mistakes per repetition are down to a nice round number - say zero. Such a practice scheme is desirable because it has built-in feedback; that is, the harder pieces will receive more repetitions at each speed than the easy ones.

When you have the piece up to a comfortable playing speed, you may be alarmed to find a whole new crop of mistakes setting in. In pizzicato playing, these mistakes are usually due to the onset of tension in either hand. Your hands learned when and how to apply force to the strings. Release of force, however, was not critical in the early, slow repetitions and remained adequately learned only for the initial gradual increase in speed up to playing speed. Then, on further playing, the fingers adopted improper habits of muscle release.

So the usual tension pattern is to fail to completely release the muscle force. It is little wonder, then, that the muscles you use will feel tired quickly under such conditions. But the most conclusive proof of incomplete release is that additional muscles not normally used must come into play to counteract the muscles which failed to release. For example, when tension sets in to your right hand, the muscles in the top of your arm will get tired. These muscles have the function of straightening out your fingers — an unnecessary action except when the muscles curling your fingers for plucking are working overtime.

Aldous Huxley wrote, "Whatever the art you may wish to learn — whether it be acrobatics or violin playing, mental prayer or golf Learn to combine relaxation with activity; learn to do what you have to do without strain; work hard, but never under tension."

¹Aldous Huxley, THE ART OF SEEING (New York, Harper & Bros., Publishers, 1942) p.37.

Tension habits are conquered by more slow practice. The metronome is now used to hold practice speed

down to about 2/3 of the piece's playing speed. Then increase the speed after a repetition at zero mistakes is attained, and do this each day until the piece can be played perfectly at normal speed. You have now experienced what a pianist once told me is called the "second learning".

But your pieces will never be absolved of the need for continued slow practice. It is the great normalizer, evening out the passages which have become rough. Slow practice also brings out the forgetting-type errors in your older pieces so that you can correct them before a performance. I usually set the metronome at 3/4 of the piece's playing speed when practicing for a performance. Slow practice is the security guard on the conquered territory.

B. Strategic

The need to continually roll back one's strength limitations is probably greater for the bassist than for any other musician. Strength is the foundation of technique. It sets the stage for more conquered territory.

Strength gives you control, dynamism, speed, and cleanness of playing. I have even found intonation to be improved by strength-building, as it helps one to shift the left hand faster and with more sureness, and to hold the proper spread of the fingers.

If a mistake continues to occur in a piece, even after many repetitions, it probably is due to a limitation in strength. Go over that passage not 3, not 10, but 100 times. The results of 100-timesing are almost magical. Even 50-timesing does not work as well. But you may do your 100 in two groups of 50 if you need to lie down in between.

Another fiendish facilitizer is to adjust the bridge so that the strings are farther from the fingerboard — say, an additional half inch at the bridge end. This will strengthen not only the fingers of your left hand, but also your arm and shoulder — important in pressing the strings to the fingerboard in the higher positions where there

can be no clamping support from the left thumb.

If a problem plagues you, write an exercise around it. 100-times it. Do it with high strings. 100-times it with high strings. But avoid all sharp pains. Also, do not let your left hand finger joints straighten out completely under force, for then the joint and not the muscle is sustaining the force, with consequent loss of control. And your muscles would not be forced to strengthen.

You can apply to both hands this tip from the pianists: Make a fist. Press against the third finger with the fourth finger. Now work the fourth finger back and forth as it continues to press against the third finger. This develops strength and independent finger movement.

When driving a car or at other times, try with each hand to squeeze on a tennis ball. Do it with every finger individually, trying to indent the ball deeply each time.

When you swim, swim hard. This will develop your back, shoulders, and arms. And swim under water for as many strokes as you can, to build wind capacity. You need all the air you can get when performing fast pizzicato passages.

I hope my advice for conquest of pizzicato technique does not seem dogmatic. It is simply what I have learned in building a technique anew. I do not always know why my methods work, but they work for me.

III. The Art of Playing

A. Technical Hints

1. THE BODY

Stiffen your body, leaning back slightly. Arch your right palm, with fingers pointing downward. Poise your left hand in readiness for vibrato. Get used to this feeling. It is for you what embouchure is for a wind instrument player. It positions you for good tone and confident playing.

You will enjoy applying to pizzicato bass what you can learn from the other

instruments. I refer you particularly to "Method for the Harp" by Lucile Lawrence and Carlos Salzedo¹. On page 17 the authors say, "In practicing the following exercise, the student must at first imagine that a column of sound is enclosed in his hand. This will facilitate his comprehension of the fundamental harpistic gesture."

2. THE RIGHT HAND

Working out the optimum right hand fingering is best left to the unconscious mind. This fingering will automatically change as the hand develops, making it impractical and unnecessary to consciously work out a right hand fingering when learning a piece. After learning, any conscious effort to change the fingering has about the same effect as a centipede stopping to think which leg to put forward next. You will marvel at the seeming illogic of what the right hand finds to be easiest to do. Occasional re-practicing of old pieces will enable your right hand to incorporate into it its latest tricks.

Some mornings, you may wake up with a pain in your right palm. This is because fast practice has brought on the use of the muscles in the palm, rather than in the arm, to actuate

your plucking fingers. This is desirable, as the palm muscles, by being closer to the fingers, can act faster. I find that the pain can be averted by an occasional *relaxed* playing of fast pieces. This subject is treated in Arnold Schultz's book "The Riddle of the Pianist's Finger". In all of your playing, think of your right hand as supple and floppy.

All chords should be rolled; that is, "arpeggioed". This makes the notes individually audible where their lowness would cause them to be indistinct otherwise. Pressing the right hand fingers against the fingerboard just prior to plucking will give you a more evenly rolled chord. Twist the right hand outward from the bottom as you pluck, and accentuate the melody note.

3. THE LEFT HAND

Think of your left hand finger tips as very live, like little projectiles aimed accurately at the string. Accelerate all fingers right up to impact with the string, so that their inertia can add to the initial clamping force. This hammering action is especially helpful in fast playing.

Due to the sheer speed attainable and

the multiplicity of notes playable simultaneously, the left hand technique is more critical than ever. There is no time (nor enough energy) to slide your left hand, so it must learn to jump. And the rapid decay of the pizzicato tone gives you no chance to correct your intonation. Rely on your ear to tell you whether you landed correctly. Correct each mistake as it occurs.

In starting a shift, do not jerk the left hand away before it has properly executed the last note before the shift. Start later, shift faster, and land sooner. This will impart a reassuring squareness and snap to your playing. You then can round off your passages to suit your musical taste, not your technical limitations. Such capability of precision is a delight to observe in the great cellists as well as jazz and classical bassists.

Here is a tip for executing large jumps with the left hand: Keep that hand flying low, close to the string during the jump, and mentally picture that string lurking just under the left finger tips. This will help you to land on the string.

To produce a warm, human sound, vibrato can be generally used in slow playing, even in chords. Learn to use vibrato in all notes of a chord except, of course, those played on open strings. Vibrato in chords can be mastered by imagining that your left arm is alternately lifting and pushing down on the bass, with the fingers so supple that they cannot follow but rather must roll on their tips. Squeeze harder with your left hand on the vibrato upstroke than on the downstroke. Learn to feel these strokes in the left thumb tip so that it will aid rather than obstruct the motion. When the right thumb helps to form the chord, it too can produce vibrato. I hope these ideas do not conflict with, but are supplementary to, what you already have learned about vibrato.

¹Lucile Lawrence and Carlos Salzedo, METHOD FOR THE HARP (New York, G. Schirmer, Inc., 1929)

²Arnold Schultz, THE RIDDLE OF THE PIANIST'S FINGER (New York, Carl Fischer, Inc., 1949)



B. Expressing Yourself

The string bass's absence of frets allows pitch to be a variable in expression. It is a helpful exercise to chart, for each key, how the positions can be modified to get better-sounding intervals. It is generally agreed that the major intervals should be larger, and the minor intervals smaller, than tempered intervals such as frets give.

Absence of frets also means that true blue notes can be played. These are described as the scale degrees between the major and minor third, and between the major and minor seventh. Scale degrees between the major and minor second, and between the perfect and diminished fifth, also make effective blue notes in pizzicato bass playing.

Equally important is the variation in tone achieved by plucking on different parts of the string. Plucking near the bridge gives a hard, crisp sound especially effective in low chords, in which the notes may not otherwise be distinguishable. Plucking in the middle of the active length of the string gives an arrestingly tart, mellow sound. This mellowness is clarinet-like because, just as on a clarinet, the odd-numbered harmonics are prominent.

The importance of the loudness variable hardly needs to be stressed. Each note of a chord, arpeggio, run, tremolo, etc. can be played at a slightly different loudness — a dimension of expression absent from such instruments as the organ or harpsichord.

Your independence of any accompaniment gives you total control of still another variable: tempo. Rubato is yours to use freely. Spontaneous nuances of rhythm give more life to the performance. It is also effective to speed up as you get softer, for delicacy; and slow down as you get louder, to achieve the sensation of largeness. This is especially effective when producing throbbing, droning pedal point. Incidentally, the speeds at which you roll your chords can convey different meanings, too.

Give your playing an exciting gait. Be capable of high carelessness and yet be ever mindful at the same time. No piece is well-learned until it is capable of this.

Relax! Don't rush it. The excitement of performing brings on all the speed you can handle. Expression is the important thing. Give it meaning. Make every note count. Don't project just the important notes and peaks of interest, but go slowly enough to explore every valley. This gives dimension to the performance. Play as if you were discovering the piece's beauty for the first time.

Bring out the melody notes. Sustain them. Play poetically. Be lyrical and sensitive. Have a singing, legato approach.

Be always proving a point. Be always building up or letting down — increasing or decreasing tension. Soul is total emotion, and the bass has soul. Dredge the soul.

Do your building nobly and slowly. Set the scene and move into it. Get the grand sound. Try to break down a wall with your expression.

Lock in with the audience. Have rapport. Break the self barrier. Make every last member of the audience feel that you are playing to him. Then, put your whole self into it. For the audience, and for you, it will be a great musical experience.

Biography

Mr. Fisher a former automotive engineer, now devotes his time to the string bass.

His musical career began with a piano lesson before the age of three. After studying piano for ten years with his parents, both of whom are musicians, he had two years of string bass lessons from Estelle Swigart of Evanston, Illinois. With this background, he then proceeded to develop his own pizzicato style and to compose specifically for string bass.

All of his renditions are played pizzicato, without any accompaniment.

They contain chords, arpeggios, runs, etc. — up to five notes at a time, as he has a 5-string bass. No amplification is used. His speed has been timed at eleven notes per second, now believed to be a record. The instrument's exciting new dimensions of artistry and soul are explored in his music.

Repertory:

Lassan Movement Franz Liszt The little Rogue Heinrich Hofmann To the Distant

Beloved Hugo Reinhold
Prelude Henry Holden Huss
Nocturne Emma Dutton Smith
The Way You Look
Tonight Jerome Kern

So In Love Cole Porter

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