# HAMMOND ORGAN

# PERCUSSION CONTROLS

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# PERCUSSION CONTROLS

## SPECIAL FEATURES

The Hammond Organ Percussion Controls enable the organist to produce a wide variety of tones similar to the orchestra bells, chimes, marimba, xylophone, and harp. They are not intended, however, to be exact substitutes for the percussion stops found on some pipe organs. An important feature of the Hammond Organ Percussion Controls is that the percussion tones may be produced with a key-controlled "touch-response" in which desired notes of a melody may be accentuated with the percussion tone while others are not so accentuated. This, of course, is impossible with the usual pipe organ percussions where *every* key played must sound percussively whenever a percussion stop is used. As will be explained later, this unique control is achieved through the method of playing the keys. Whether the keys are played in a sustained (legato) or detached (non-legato) manner determines whether or not the tones shall be percussive.

## THE PERCUSSION CONTROLS

The percussion tones are available on the upper manual. They are controlled in pitch, volume, and rate of decay by means of four tilting controls.

*Percussion "ON-OFF"*—This control, when in its "ON" position, renders the percussion system effective on the upper manual (use upper manual "B" pre-set key on Home, Church, and Concert Models). *Note*: In the "ON" position, all of the upper manual drawbars will be effective *except* the 8th Harmonic Drawbar. This latter is employed for operating the percussion system. In the "OFF" position, the 8th Harmonic Drawbar is effective as usual.

*Percussion Volume*—This control regulates the volume of the percussion tone. When it is set to its "normal" position, the percussion effect will be very prominent relative to the tones produced by the upper manual drawbars. It will also be noticed that the tones from the upper manual drawbars are reduced in volume to compensate for the addition of the percussion tones. This volume compensating feature enables the organist to quickly make registration changes by merely manipulating the "ON-OFF" percussion control. When the Percussion Volume Control is set to its "SOFT" position, the percussion effect is much less prominent. The volume of the upper manual drawbar tones therefore remains unaffected by the addition of the soft percussion effect.

*Percussion Decay*—When this stop is set to its "SLOW" position (push tablet down at front), the percussion tone will decay slowly like a chime. In its "FAST" position, it will decay rapidly like a xylophone or marimba.

*Percussion Harmonic Selector*—The position of this tablet determines the pitch at which the percussion tone sounds. When set at "SECOND," the pitch is up one octave with respect to the Fundamental Drawbar; when set at "THIRD," the percussion pitch is up an octave and a fifth with respect to the Fundamental Drawbar.

## *IMPORTANT!* RULE FOR LEGATO AND NON-LEGATO PLAYING

It is important to understand that the percussion tones will sound only if the keys are played in a detached (non-legato) manner. Any degree of detachment will suffice to operate the percussion system. For example, if the melody is inherently of a sustained character, the degree of detachment required for operation of the percussion system can be so slight as to be imperceptible. Thus, the operation of the percussion system is controlled by the manner in which succeeding keys are played. The organist will find this intimate control of the percussion tone of great artistic value as it enables him to percussively accentuate only those notes of a melody which he feels would be enhanced thereby. Other less prominent notes may be passed over without percussion merely by playing them in a sustained legato manner. Thus, for a percussion tone, remember to release the first key before the second key is pressed.

The above rule about legato and non-legato playing only applies to the upper manual. The left hand accompaniment as played on the lower manual is entirely independent and can be played in any manner desired.

## MUSICAL EXAMPLES

The examples which follow will clarify the meaning and application of the above rule. In the music scores, a red check (✓) before a note signifies that the player should raise his hand off of the upper keyboard for an instant to provide for a percussion tone on the following note.

*EXAMPLE 1 ("Skater's Waltz")*—When first trying this example, play the right-hand melody with the second finger throughout. This, of course, will automatically produce the required detachment essential for the percussion tone. Now repeat the example playing the melody part in the usual sustained legato manner. Note that the percussion effect is absent on all notes save the first. Now repeat playing in a *very slightly detached manner* and observe that the percussion effect is present regardless of how slight the detachment. The degree of detachment can be so slight as to be unnoticed in so far as the general legato character of the melody is concerned.

The red checks (✓) before the notes indicate that a slight break should be used for producing the percussion tone.

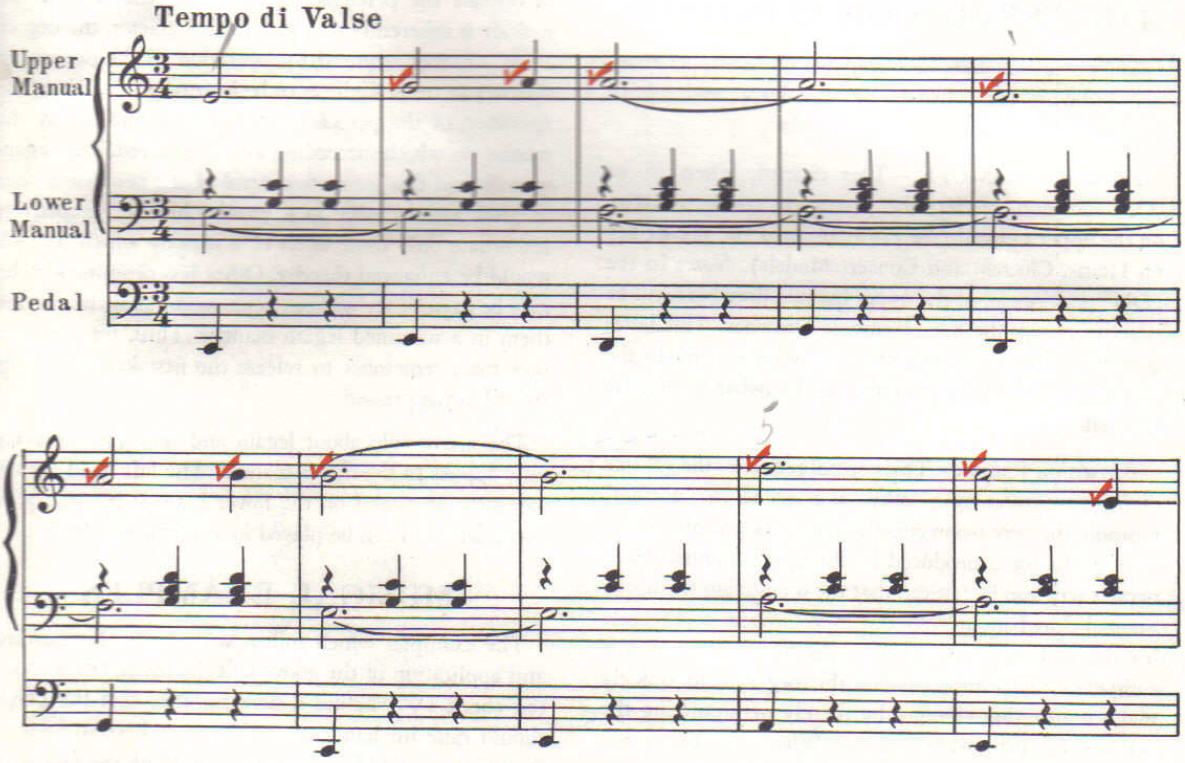
## REGISTRATIONS

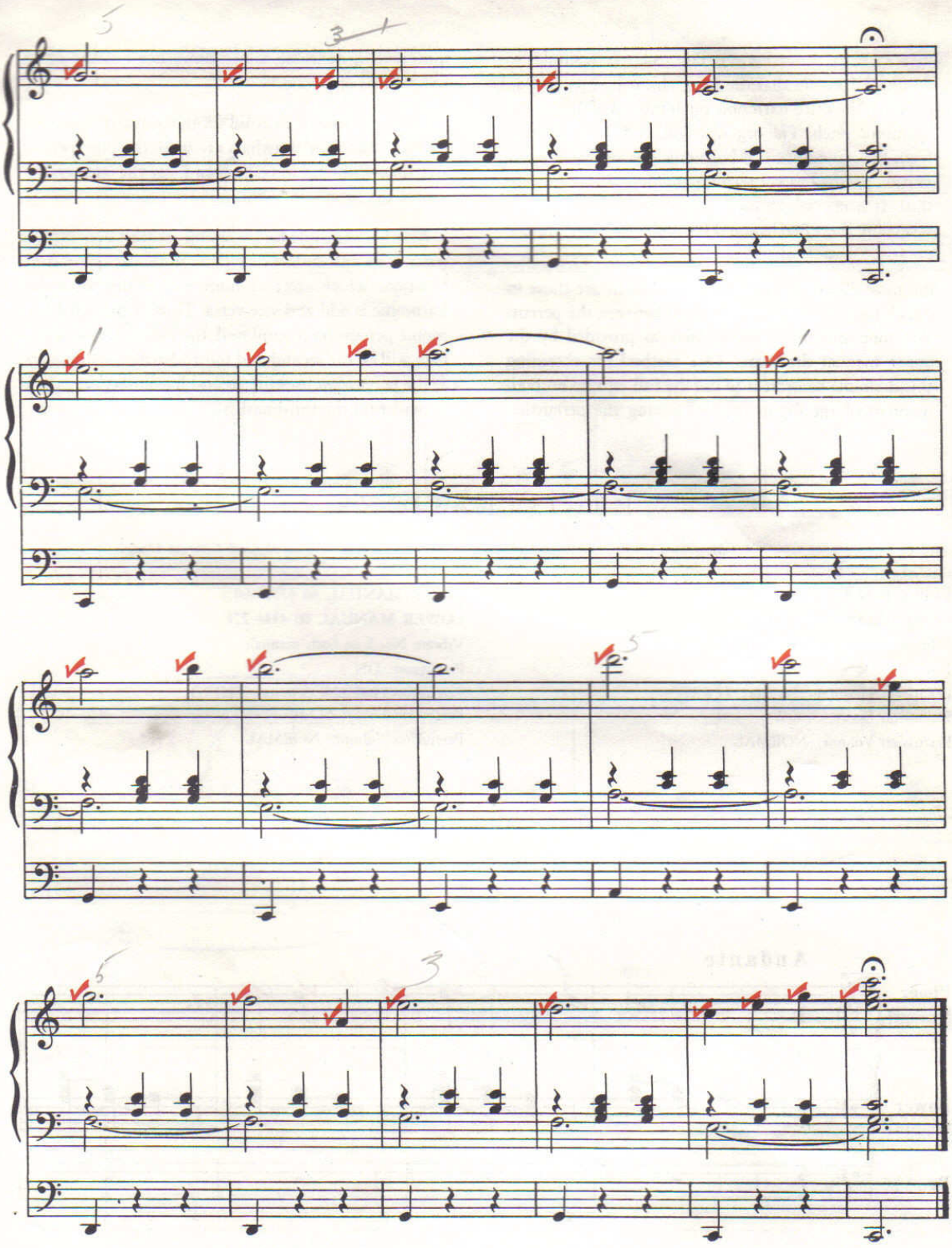
*Spinet Model*

PEDAL 5
UPPER MANUAL 70 7064 000
LOWER MANUAL 6634 2240
Vibrato Normal on both manuals
Percussion: ON
Percussion Harmonic Selector: SECOND
Percussion Decay: SLOW
Percussion Volume: NORMAL

*Home, Church, and Concert Models*

PEDAL 64
UPPER MANUAL 70 7064 000
LOWER MANUAL 00 6634 212
Vibrato No. 3 on both manuals
Percussion: ON
Percussion Harmonic Selector: SECOND
Percussion Decay: SLOW
Percussion Volume: NORMAL





*EXAMPLE 2 ("Vilia Song")*–This example is similar to Example 1 except that the long, chime-like percussion occurs at the third harmonic pitch instead of the second harmonic pitch. The organist will find that changing from the second to third harmonic (or vice-versa) percussion produces a very strong and desirable tonal contrast. It is one which can be quickly made by merely reversing the "Percussion Harmonic Selector" tablet.

*Note Regarding Percussive Registrations*: Generally, the most effective percussion registrations are those in which there is great tonal contrast between the percussion tone and the sustained tone as provided by the upper manual drawbars. One method for obtaining this desirable contrast is to use the full vibrato on both manuals of the organ thereby leaving the percussion tone with a desirable solo prominence because of its non-vibrato character.

Another factor is to avoid using too many drawbars. If more than four drawbars are used, the pure percussive tone will tend to be "masked" by the greater harmonic development of the sustained tone.

Another principle for obtaining contrast between the percussion and sustained tone is to use drawbar combinations which are even-numbered if the percussion harmonic is odd and vice-versa. Thus, if the third harmonic percussion is employed, the most effective drawbars will be the second and fourth harmonic drawbars. If the percussion uses the second harmonic, the organist will find the third and fifth harmonics effective.

## REGISTRATIONS

*Spinet Model*

PEDAL 5
UPPER MANUAL 80 4700 000
LOWER MANUAL 4434 3210
Vibrato Normal on both manuals
Percussion: ~~ON~~ no
Percussion Harmonic Selector: THIRD
Percussion Decay: SLOW
Percussion Volume: NORMAL

*Home, Church, and Concert Models*

PEDAL 64
UPPER MANUAL 80 4700 000
LOWER MANUAL 00 4434 221
Vibrato No. 3 on both manuals
Percussion: ON
Percussion Harmonic Selector: THIRD
Percussion Decay: SLOW
Percussion Volume: NORMAL

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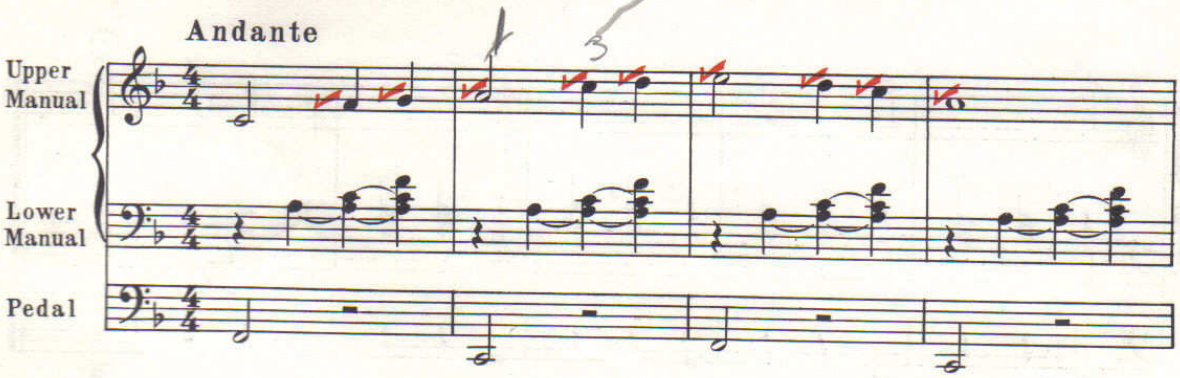
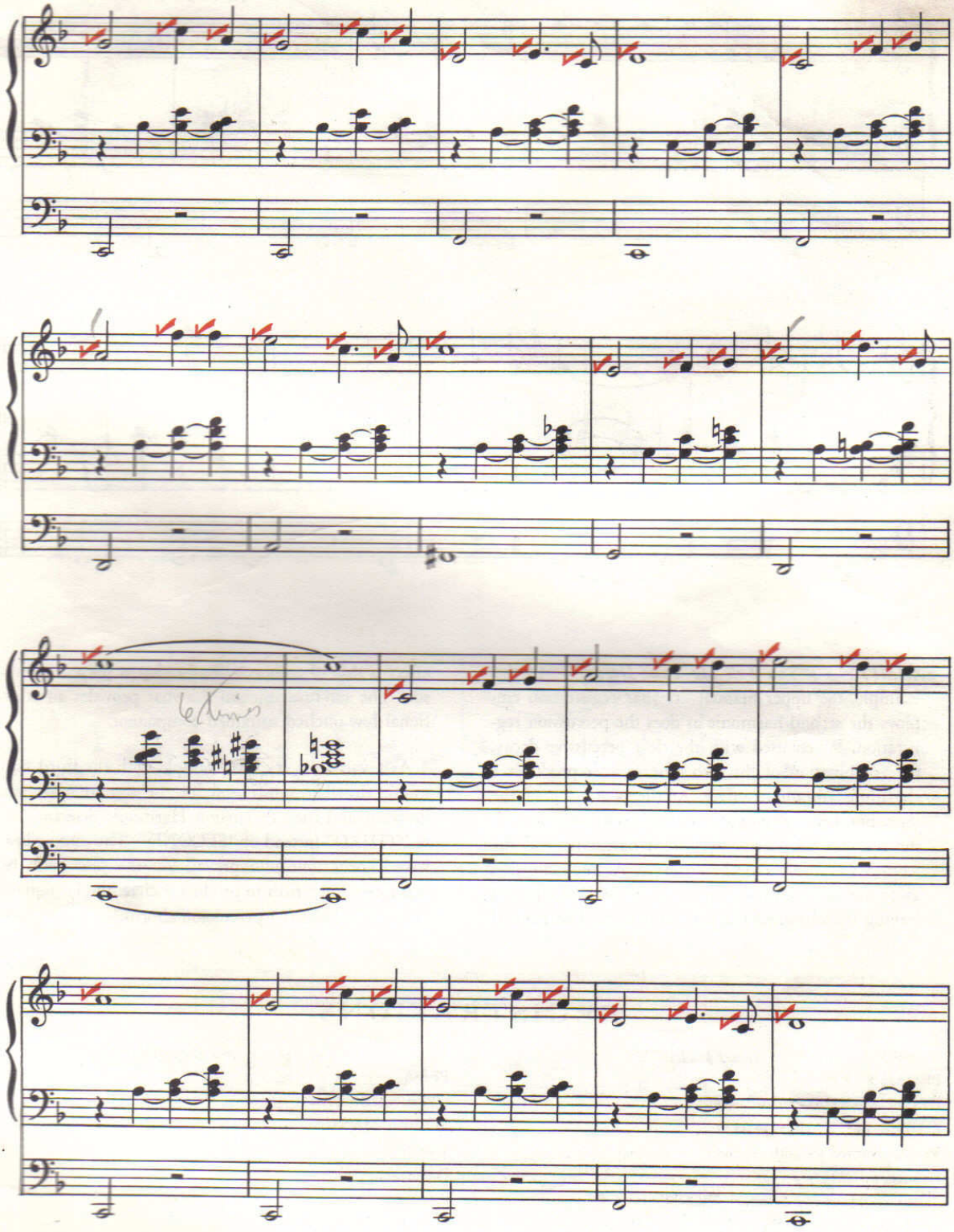
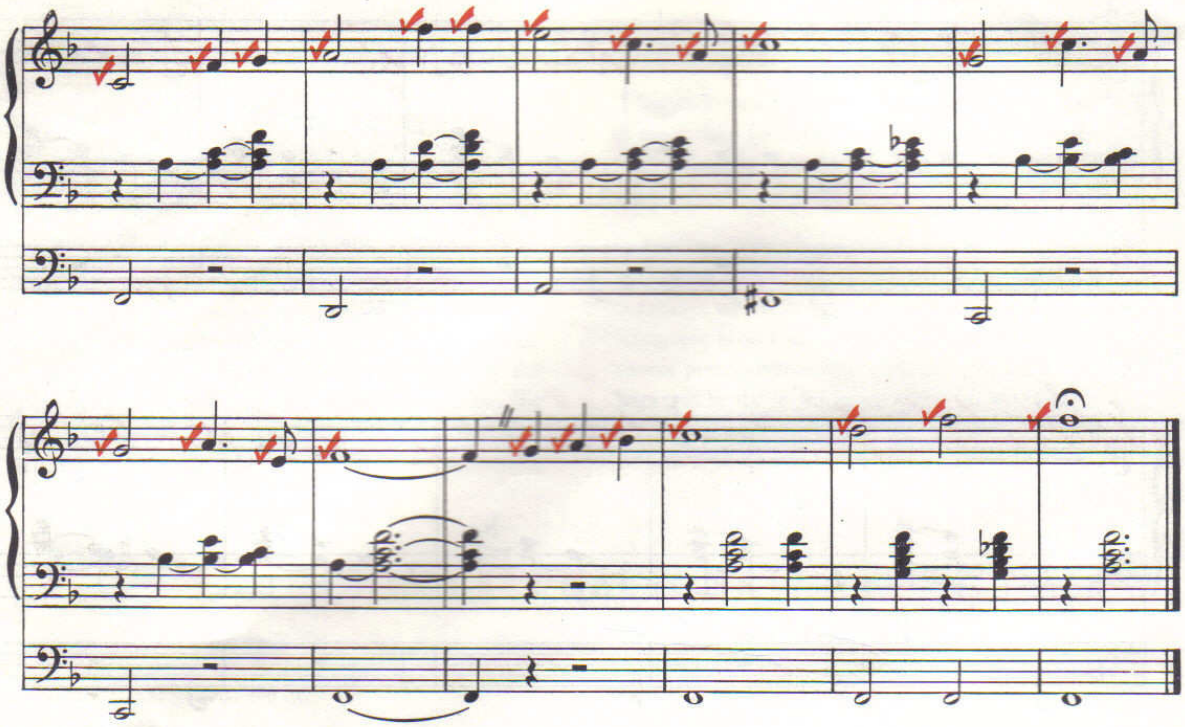






*EXAMPLE 3 ("You Tell Me Your Dream")*—In this example, the upper manual drawbar registration employs the second harmonic as does the percussion registration. When used with the slow percussive decay, the combination of the two tone sources produces a charming vibra-harp effect. At the beginning of the tone, one hears a "vibrato chorus" composed of both the non-vibrato percussive second harmonic and the vibrato sustained second harmonic. As the tone dies away, the non-vibrato component smoothly disappears leaving the sustained vibrato component. The general effect is that of a chorus of vibra-harps played in unison. The sub-fundamental drawbar provides an additional low-pitched sustained component.

As a variation, try this example with the third harmonic drawbar substituted for the second harmonic drawbar and the "Percussion Harmonic Selector" set to "THIRD" instead of "SECOND". The same vibra-harp chorus tone will prevail but the pitch will be transposed up a fifth to produce a charmingly piquant "nazard" (2-2/3 ft.) percussion chorus.

## REGISTRATIONS

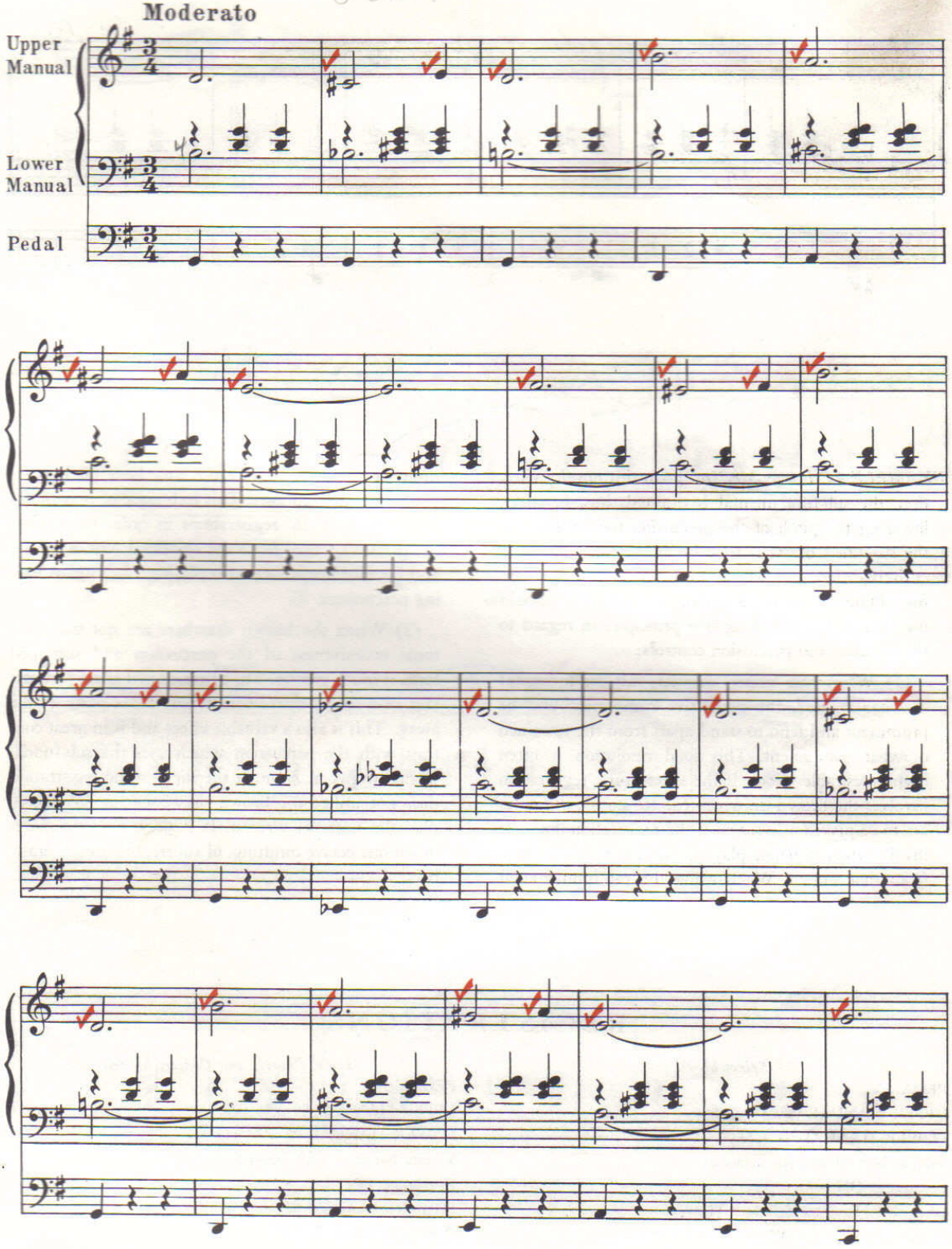
*Spinet Model*

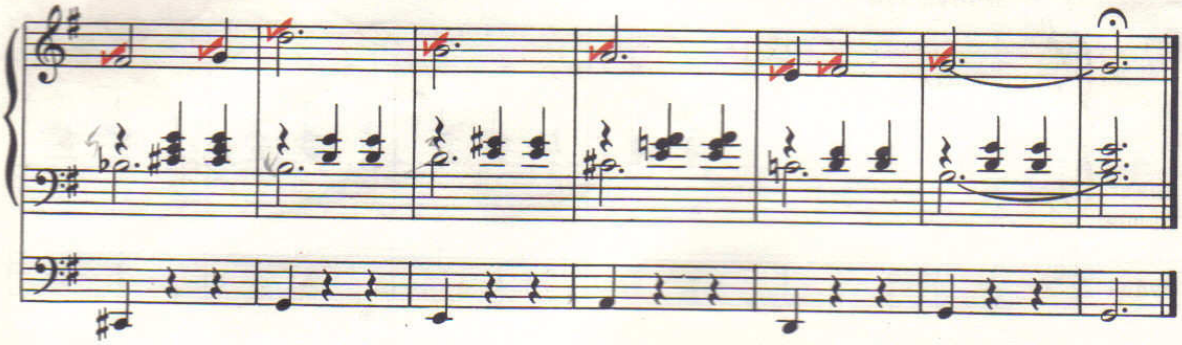
PEDAL 5
UPPER MANUAL 80 0800 000
LOWER MANUAL 4434 1130
Vibrato Normal on both manuals
Percussion: ON
Percussion Harmonic Selector: SECOND
Percussion Decay: SLOW
Percussion Volume: NORMAL

*Home, Church, and Concert Models*

PEDAL 64
UPPER MANUAL
LOWER MANUAL
Vibrato No. 3 on both manuals
Percussion: ON
Percussion Harmonic Selector: SECOND
Percussion Decay: SLOW
Percussion Volume: NORMAL

Moderato





*EXAMPLE 4 ("Forget-Me-Not")*—In this novelty selection, the sub-fundamental is omitted thus, in effect, lowering the pitch of the percussion tone relative to the sustained drawbar tone by an octave. This is an entirely different effect and provides a valuable means for obtaining tonal variation. The organist should understand the following two principles in regard to the drawbar and percussion controls:

(1) When the upper manual sub-fundamental drawbar is used, the percussive component will be prominent and tend to stand apart from the sustained drawbar component. This total resolution is often highly desirable. *Note:* If the sheet music registration involves the brown drawbars (of 16′ stops), the notes are to be played as written. If the registration does *not* involve these pitches, play the music up one octave from that shown. When using the sub-fundamental drawbar, this will produce the same basic pitch as intended by the composer. This technique of playing up an octave with 16′ registrations in order to separate the percussion tone from the sustained tone is an old and familiar one to organists playing pipe organs having percussions.

(2) When the brown drawbars are *not* used, the tonal cohesiveness of the percussion and sustained tones is much greater. The general tonal effect becomes that of a single instrument whose tones partially die away. This is also a valuable effect and is in great contrast with the percussion which uses the sub-fundamental drawbar. *Note:* If the sheet music registration does not utilize the brown drawbars (or 16′ stops), play the notes as written. If it does, play the notes down one octave omitting, of course, the brown drawbars.

## REGISTRATIONS

*Spinet Model*

PEDAL 5
UPPER MANUAL 00 7600 000
LOWER MANUAL 4434 1130
Vibrato Normal on both manuals
Percussion: ON
Percussion Harmonic Selector: THIRD
Percussion Decay: SLOW
Percussion Volume: NORMAL

*Home, Church, and Concert Models*

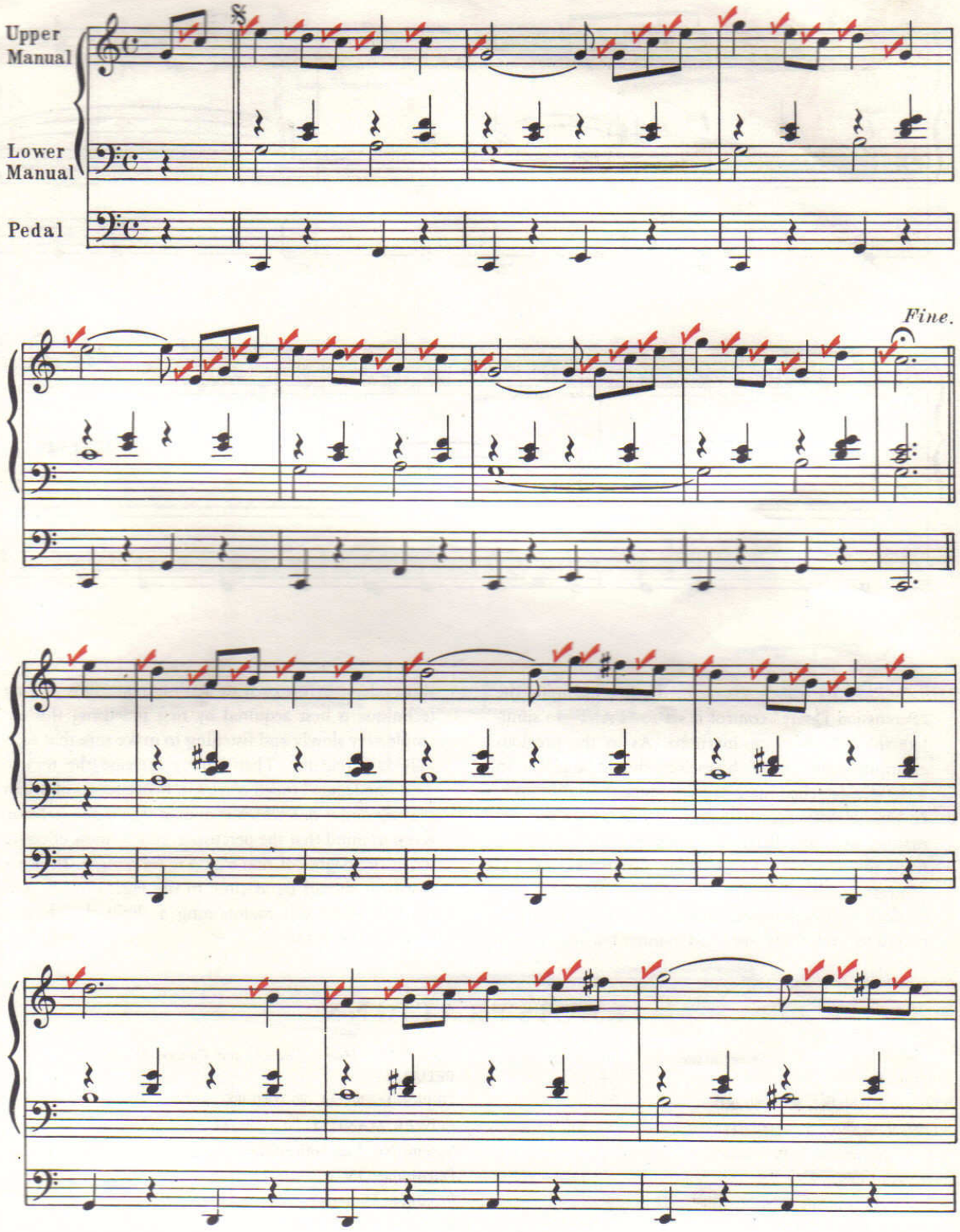
PEDAL 64
UPPER MANUAL 00 7600 000
LOWER MANUAL 00 4434 113
Vibrato No. 3 on both manuals
Percussion: ON
Percussion Harmonic Selector: THIRD
Percussion Decay: SLOW
Percussion Volume: NORMAL

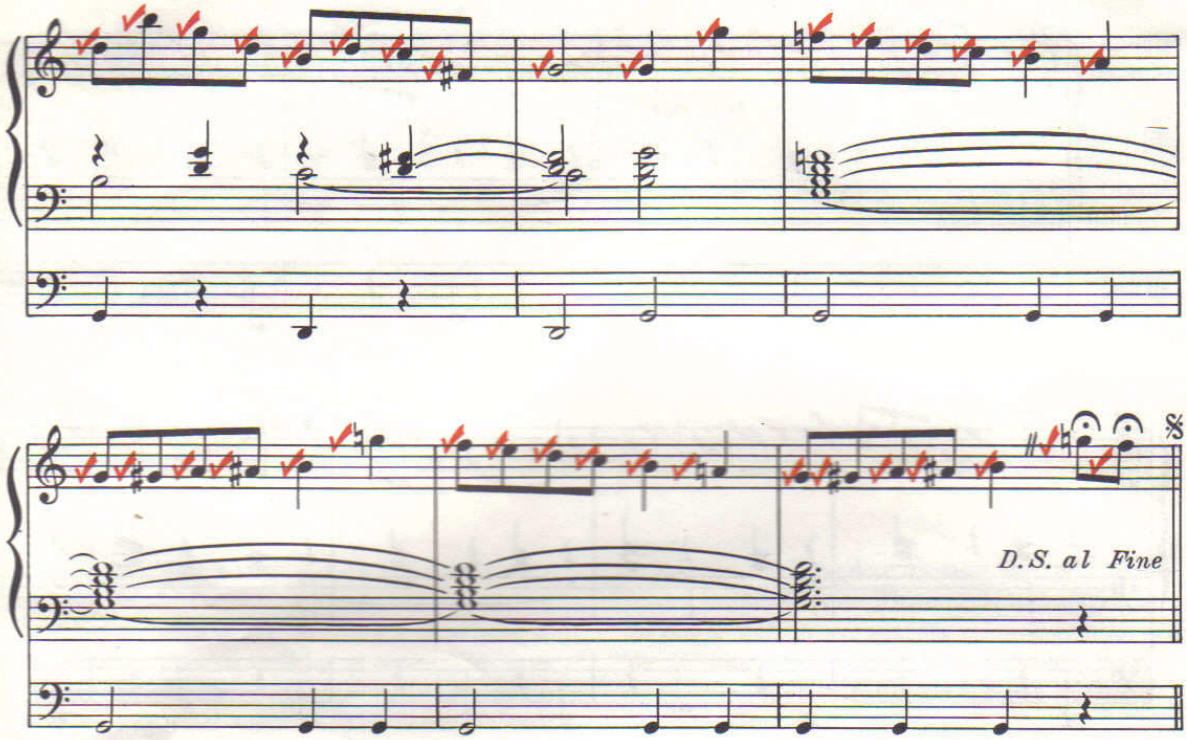
Moderato

Upper Manual

Lower Manual

Pedal






*EXAMPLE 5 ("Rustic Dance")*—In this example, the "Percussion Decay" control is set to "FAST" to simulate the xylophone or marimba. As in the previous examples, each note of the melody should be played in a slightly detached manner to produce the desired percussion. However, do not play the notes in a staccato manner as this will tend to make the sustained tone from the drawbar short like the percussion and the contrast between the two tones (sustained and percussion) will be lessened thereby. The keys should be played in a relatively sustained manner but with a very short release before each succeeding note. This playing technique is best acquired by first practising this example very slowly and listening to make sure that each note is percussive. Then slowly increase the tempo. This "no-legato" touch occurs in many forms of organ playing and is one which is neither legato nor staccato. Keep in mind that the percussion tone is most effective when the degree of non-legato is very slight. In other words, it should be as close to the legato touch as is possible while still maintaining a slight detachment between the notes.

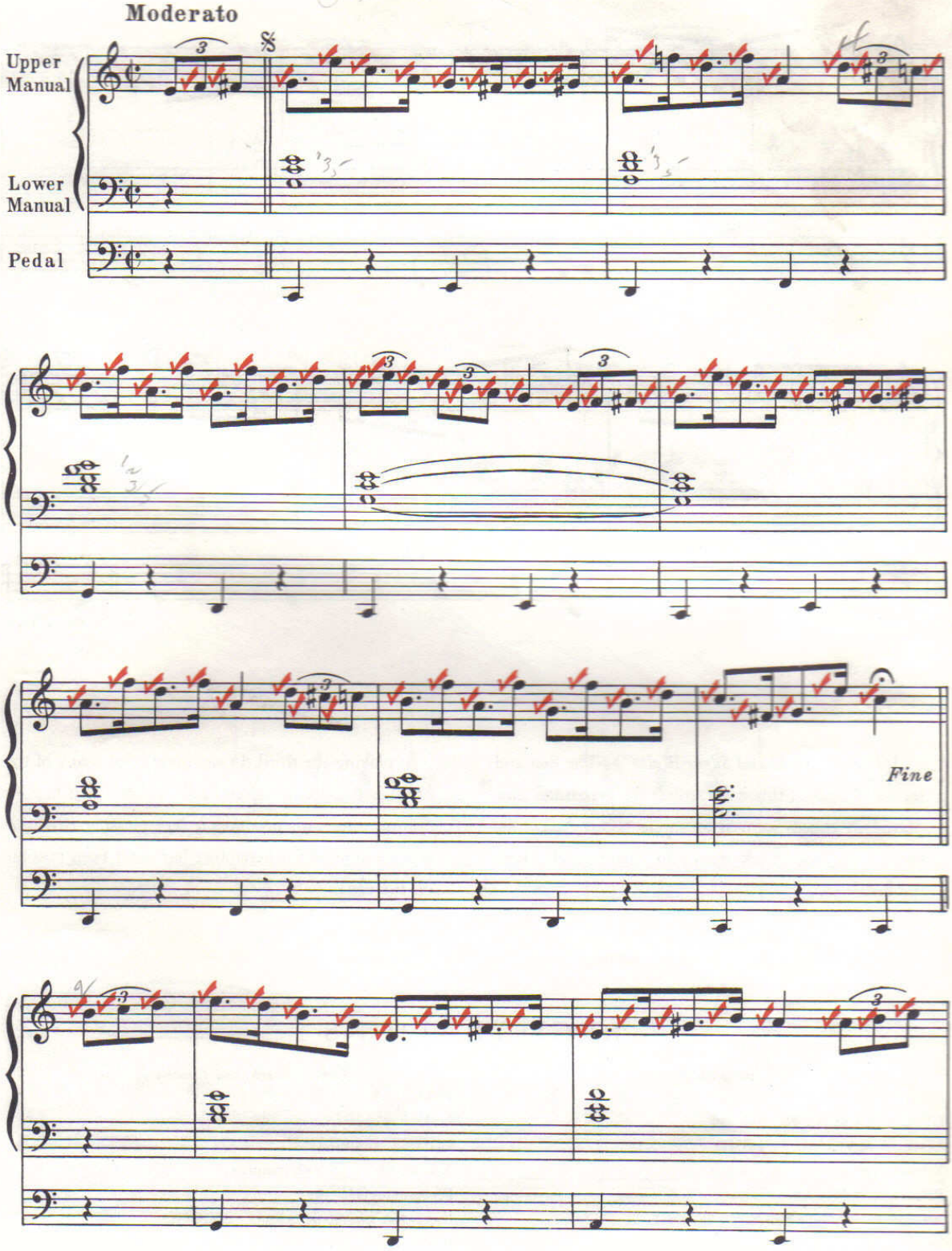
## REGISTRATIONS

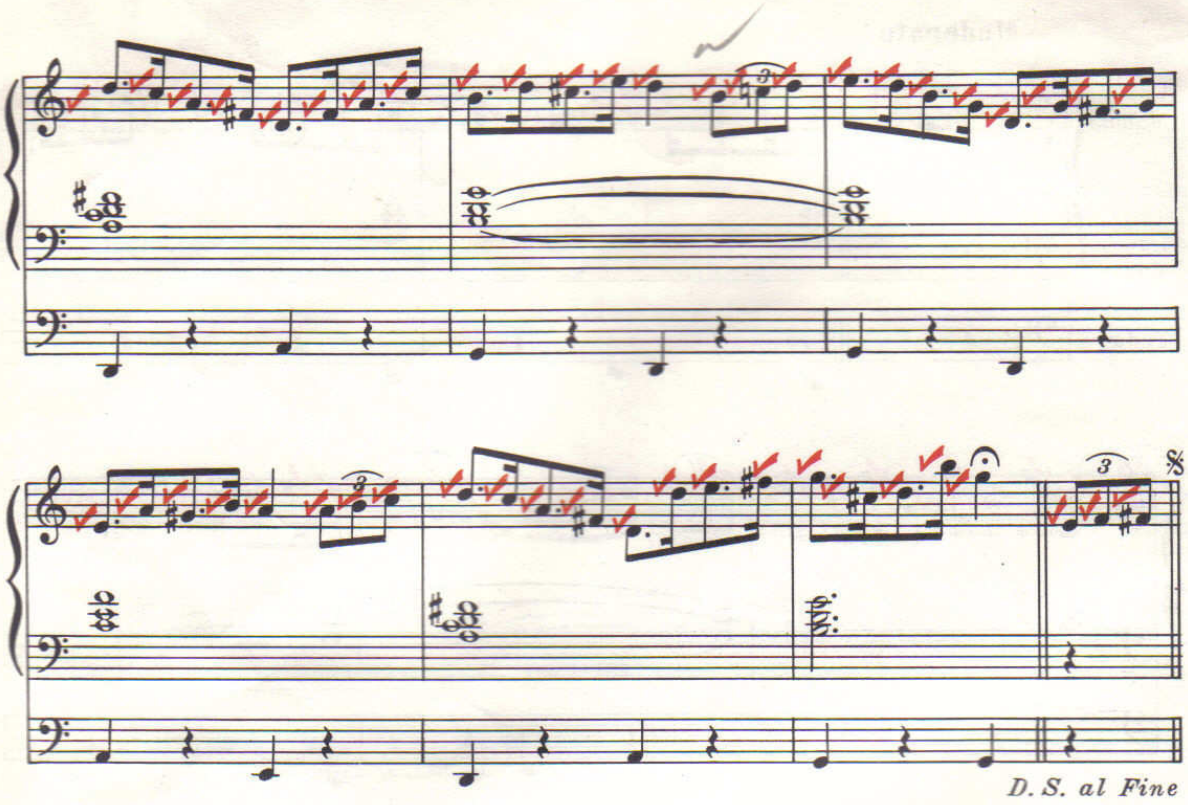
*Spinet Model*

PEDAL 5
UPPER MANUAL 80 0080 000
LOWER MANUAL 4433 2211
Vibrato Normal on both manuals
Percussion: ON
Percussion Harmonic Selector: SECOND
Percussion Decay: FAST
Percussion Volume: NORMAL

*Home, Church, and Concert Models*

PEDAL 64
UPPER MANUAL 80 0080 000
LOWER MANUAL 00 4433 112
Vibrato No. 3 on both manuals
Percussion: ON
Percussion Harmonic Selector: SECOND
Percussion Decay: FAST
Percussion Volume: NORMAL


Moderato
Upper Manual
Lower Manual
Pedal
Fine




*EXAMPLE 6 ("Gold and Silver Waltz")*—The first and second themes of this waltz utilize the percussion tone played in chords as well as single notes. As before, observe the red check marks by releasing the keys momentarily.

In playing the third theme, notice that many of the precussion notes are scored only for the first beat of the measure. This produces a very pleasing rhythmic accentuation which heretofore has never been possible on the organ.

## REGISTRATIONS

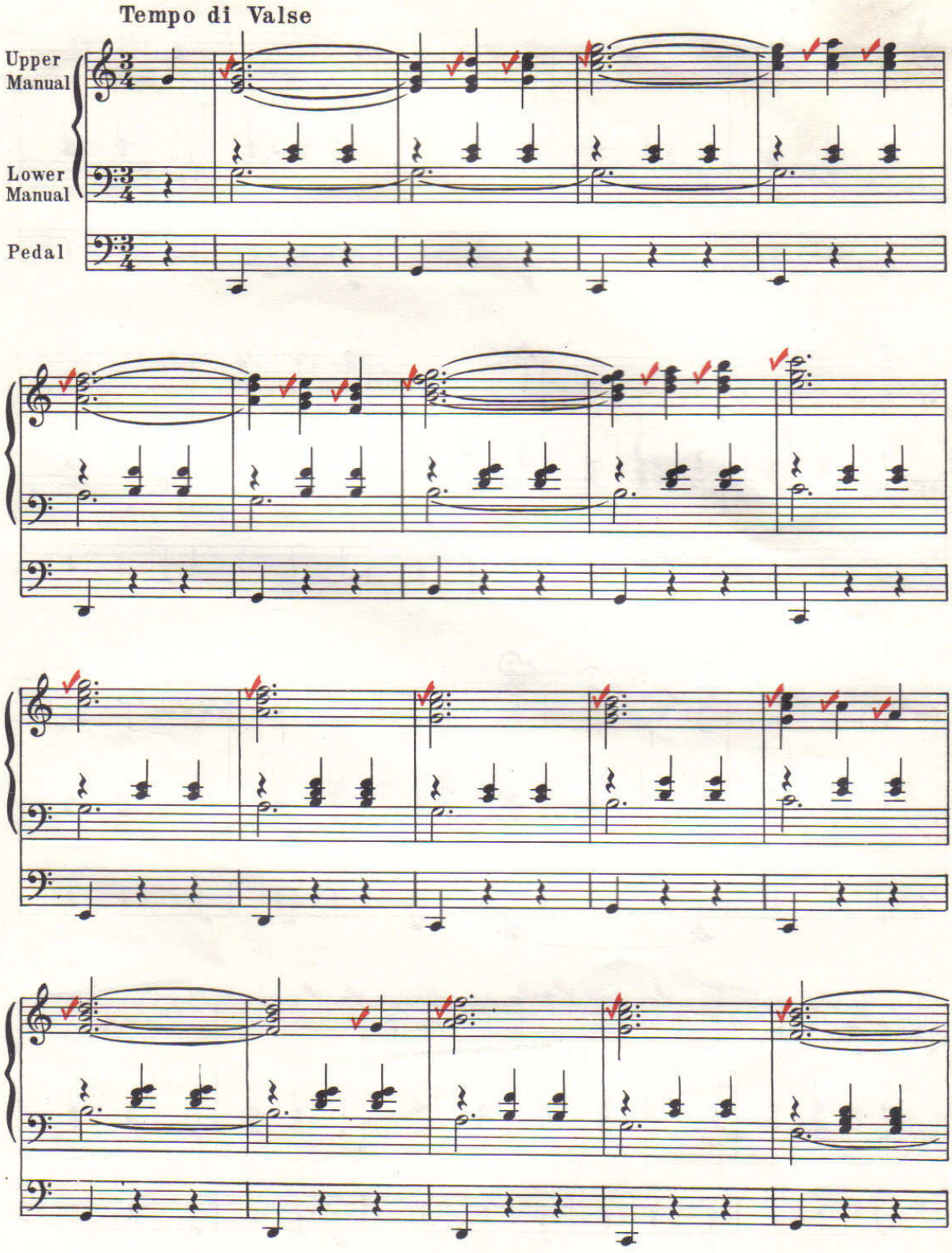
*Spinet Model*

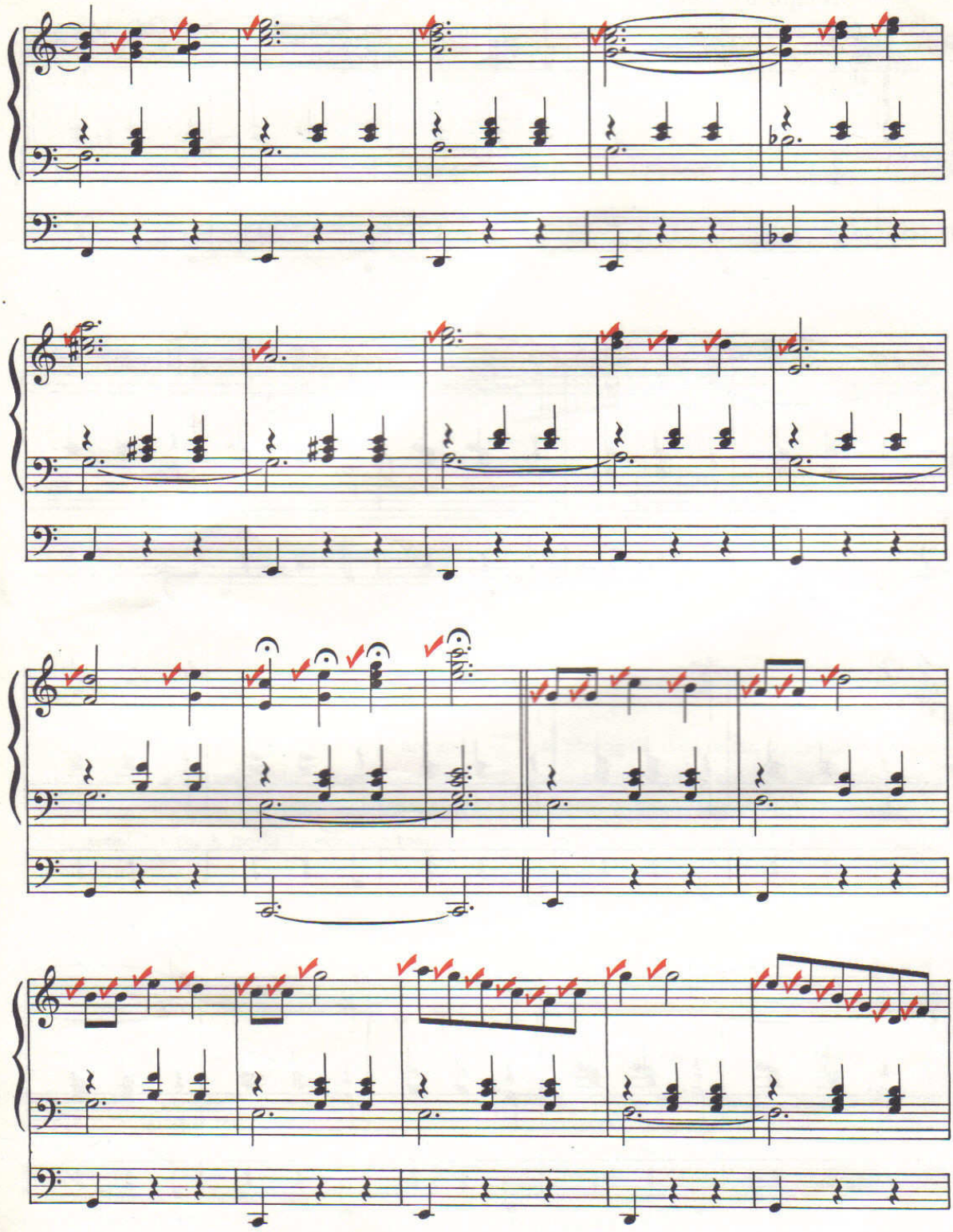
PEDAL 5
UPPER MANUAL 80 7016 750
LOWER MANUAL 5534 3330
Vibrato Normal on both manuals
Percussion: ON
Percussion Harmonic Selector: SECOND
Percussion Decay: FAST
Percussion Volume: NORMAL

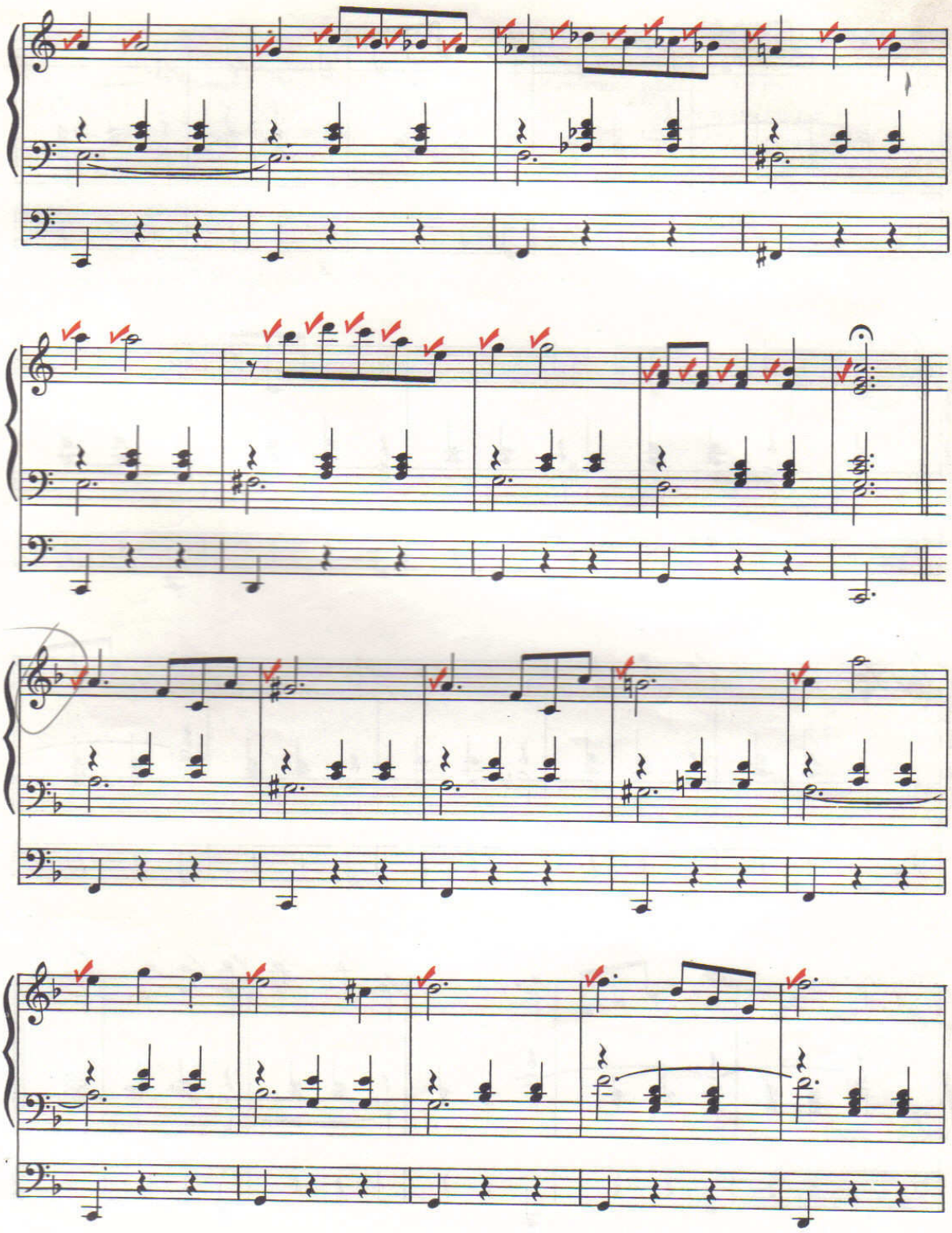
*Home, Church, and Concert Models*

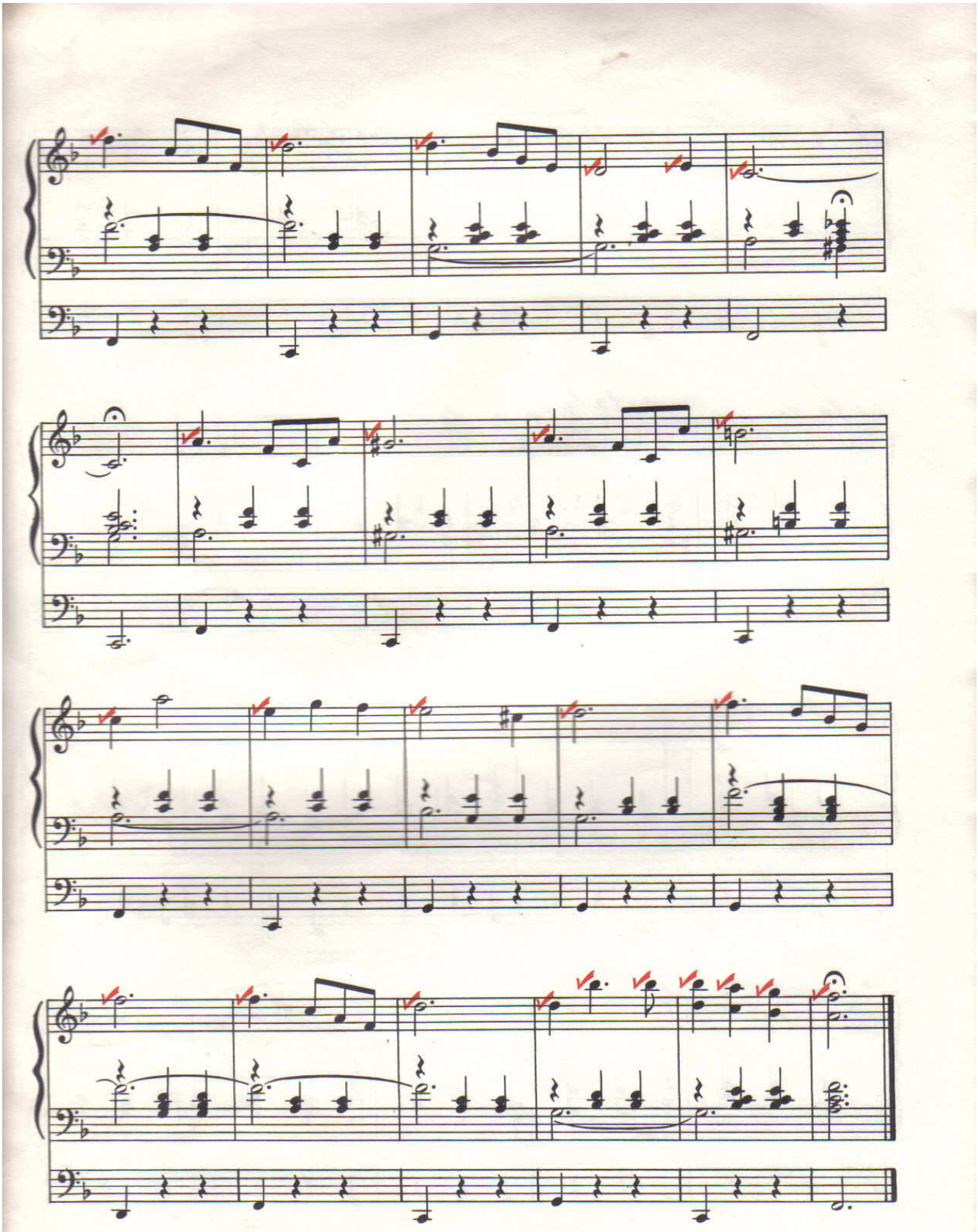
PEDAL 64
UPPER MANUAL 80 7016 750
LOWER MANUAL 00 5534 323
Vibrato No. 3 on both manuals
Percussion: ON
Percussion Harmonic Selector: SECOND
Percussion Decay: FAST
Percussion Volume: NORMAL

Dec. 9









## NOTE REGARDING PERCUSSION VOLUME

In the preceding examples, the Percussion Volume control has been set at "NORMAL" which, of course, makes the percussion tone very prominent. There are many other cases, however, where the percussion tone can provide a soft accompaniment to the sustained tone from the drawbars. Many organists find that the percussion tone, when played with the Percussion Volume control set to "SOFT" and the Percussion Decay control set to "FAST," serves to add a pleasant, unobtrusive rhythmic definition which clarifies their organ playing and makes it more enjoyable to the listener. When the percussion tone is played softly, the organist will find that it is not nearly as important to maintain a rigorous non-legato touch as when the percussion is used as a solo effect. The rests and phrasings scored in the music will usually be found adequate for the non-legato requirement when the percussion is soft.