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MC/13.601
46

IANNIS XENAKIS

HERMA

Musique symbolique
pour piano

2302321

Boosey & Hawkes
Music Publishers Limited
London · Paris · Bonn · Johannesburg · Sydney · Toronto · New York

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Les petites notes barrées, ex. , sont jouées avant le temps. Elles ont mêmes intensités que les notes principales voisines qui elles ne sont pas accentuées. Elles leur sont reliées par une ligature ⌒ ou par une ligne brisée ⌇ (qui ne signifie pas *glissando*).

Toute la pièce doit être jouée sans accents, les barres de mesure servant uniquement de repères temporels.

Les indications rhythmiques $\frac{3}{8}$, $\frac{4}{4}$ etc. n'impliquent aucune subdivision du 1er temps ou des temps suivants.

De même, les ⌐—5—¬ ou ⌐—6—¬ etc. ne sont pas subdivisés et le passage d'un groupe rhythmique à un autre se fait sans accentuer le 1er temps des groupes rhythmiques.

Cette pièce est basée sur des opérations logiques imposées à des classes de sons; c'est pourquoi j'appelle cette musique: *Musique symbolique*.

Les lettres enfermées dans des rectangles désignent les classes des sons. Il existe dans cette pièce quatre classes: [A], [B], [C], [R]. La classe [R] est referentielle et elle comprend la totalité des sons du piano.

A partir de ces quatre classes de base on peut former *hors-temps*, grâce à la relation de complementarité (négation), ex.: classe A, la négation de la classe A s'écrit $\overline{A}$; grâce aussi aux opérations, de réunion (disjonction) et d'intersection (conjunction). La réunion s'écrit symboliquement avec le signe + et l'intersection par la juxtaposition des lettres. La réunion correspond à *ou* et l'intersection à *et*. Ainsi, A + B signifie la classe dont les éléments appartiennent soit à la classe A soit à la classe B; AB signifie la classe dont les éléments apartiennent à la fois à la classe A et à la classe B.

Les relations et opérations *hors-temps* (abstraites) définies précédemment, sont materialisées dans le temps linéaire (lexicographique) à l'aide des opérations *en temps:* (a) simultaneité; (b) succession.

Les intensités de ***ppp*** à ***fff*** servent à clarifier la perception des classes lors de leur gravure temporelle

Les densités linéaires des nuages de sons des diverses classes servent elles aussi à la meillure perception des articulations relationelles et opérationelles.

The *acciaccature* are played before the beat. They have the same dynamic intensity as the adjacent principal notes which are themselves not accented. The former are connected to the latter with either a ligature ⌒ or a wavy line ⌇ (which does not here indicate *glissando*).

The whole piece is to be played without accents, the bar-lines serving merely as divisions in time.

The time-signatures $\frac{3}{8}$, $\frac{4}{4}$ etc. do not imply any subdivision or accentuation of the initial or succeeding beats.

In the same way, the groups of ⌐—5—¬, ⌐—6—¬ etc. should not be subdivided, and movement from one rhythmic group to another is made without accenting the initial beats of the groups.

This piece is based on logical operations imposed upon classes of pitches; hence I have described it as *Musique symbolique*.

The letters in boxes [A], [B], [C], [R] denote these classes. [R] is referential and incorporates all the notes on the piano.

Starting from these four classes, others can be formed *outside of time*, as a result of complementary relationship (negation) e.g.: group A, the negation of A is written $\overline{A}$; also as a result of the operations of union (disjunction) and of intersection (conjunction). Union is shown symbolically by the sign + and intersection by the juxtaposition of letters. Union corresponds to *or* and intersection to *and*. Thus A + B signifies that class in which the elements belong either to A or B; AB indicating the class in which the elements belong to classes A and B at the same time.

The relationships and operations *outside of time* (these are abstract operations) defined above are materialised in linear time (lexicographically) with the aid of the operations *in time* (a) simultaneously and (b) successively.

The dynamics from ***ppp*** to ***fff*** serve to render more clearly the perception of the classes at the moment of their temporal inscription.

In the same way, the linear densities of the 'clouds' of sounds of the various classes are used to make for better perception of articulation of relationships and of logical operations.

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Les classes de cette pièce sont uniquement définies dans la domaine hauteur.

L'exposition des éléments de chacune des classes se fait stochastiquement, c'est à dire sans constraintes restrictives, afin de demeurer sur un plan fondamental d'opérations et de relations logiques entre classes.

Le mot *Herma* signifie *lien*, mais aussi *fondation*, *embryon* etc.

(Cf. mon livre: *Musiques formelles*, édit. Richard-Masse, 7 Place St. Sulpice, Paris VI).

I.X.

Création mondiale: 2 fevrier 1962 à Tokyo avec Yuji Takahashi. Cette oeuvre lui est dédiée.

The classes in this piece are defined solely within the realm of pitch.

The elements of each class are presented stochastically, that is unrestrictedly, in order not to disturb the basic plan of operations and of logical relationship between classes.

The name *Herma* means "bond", but also "foundation", "embryo" etc.

(Cf. Iannis Xenakis: *Musiques formelles*, publ. Richard-Masse, 7 Place St. Sulpice, Paris, VI.)

I.X.

First performance: Tokyo, 2nd February 1962, by Yuji Takahashi, to whom the work is dedicated.

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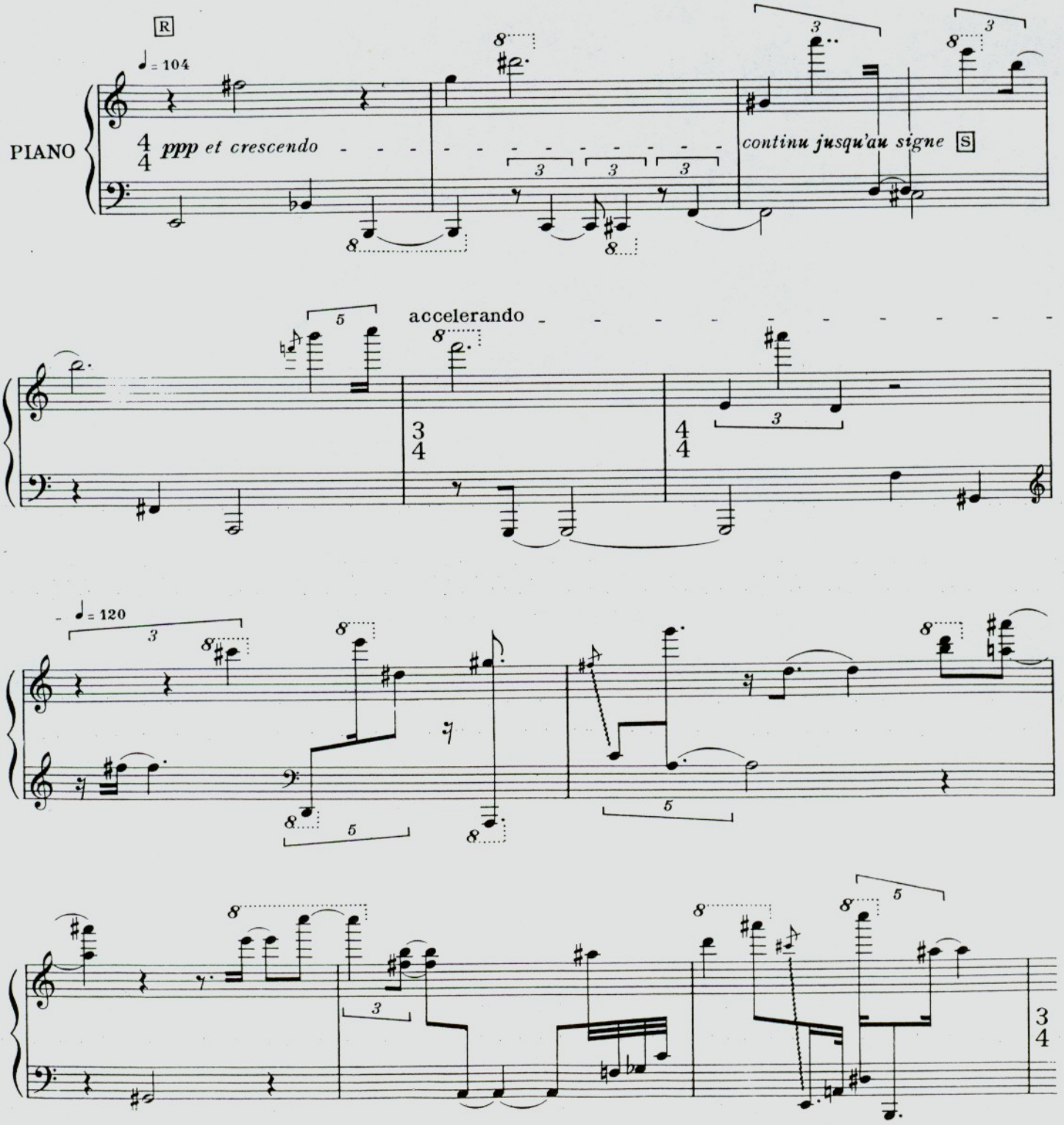
Dediée à Yuji Takahashi

HERMA

IANNIS XENAKIS



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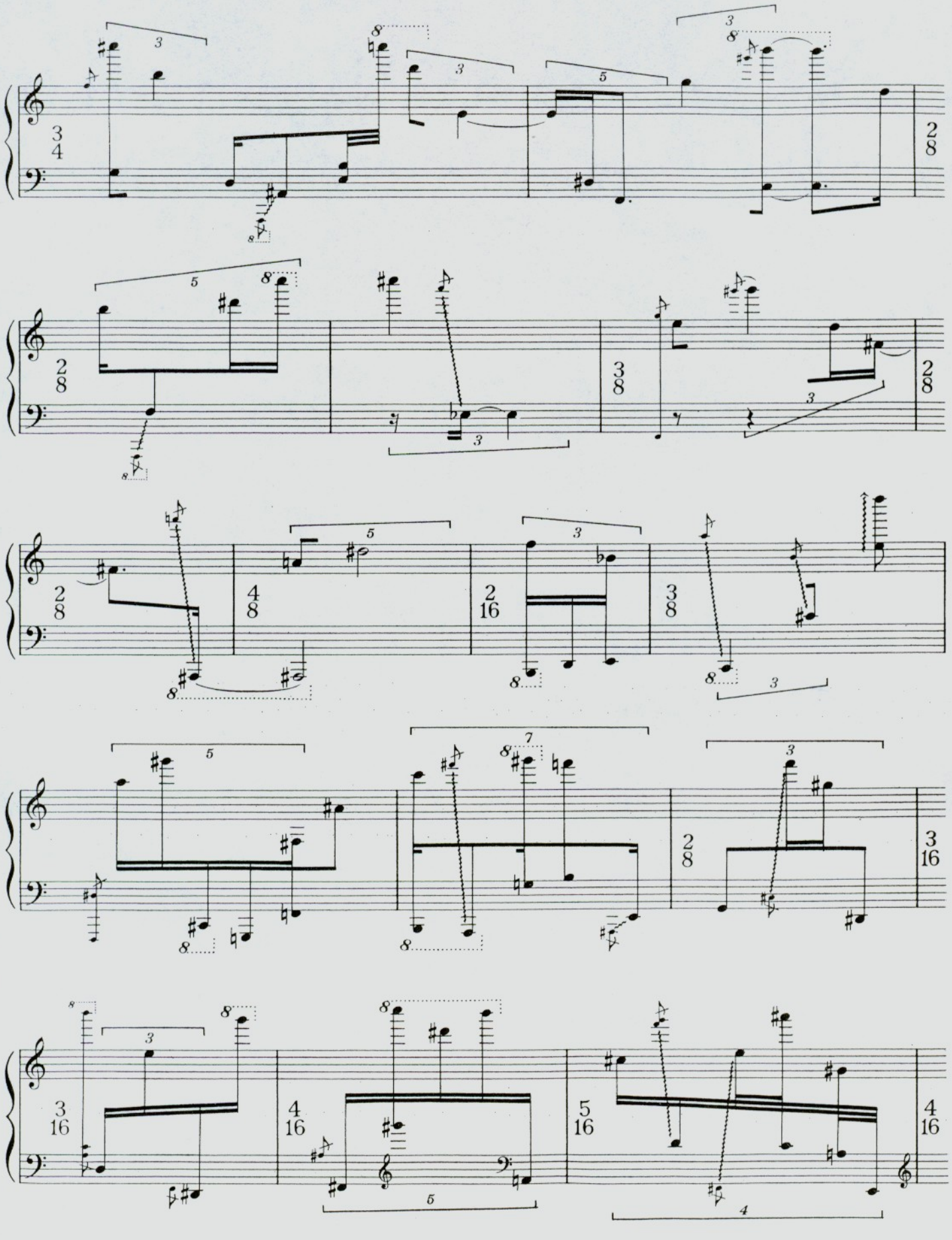

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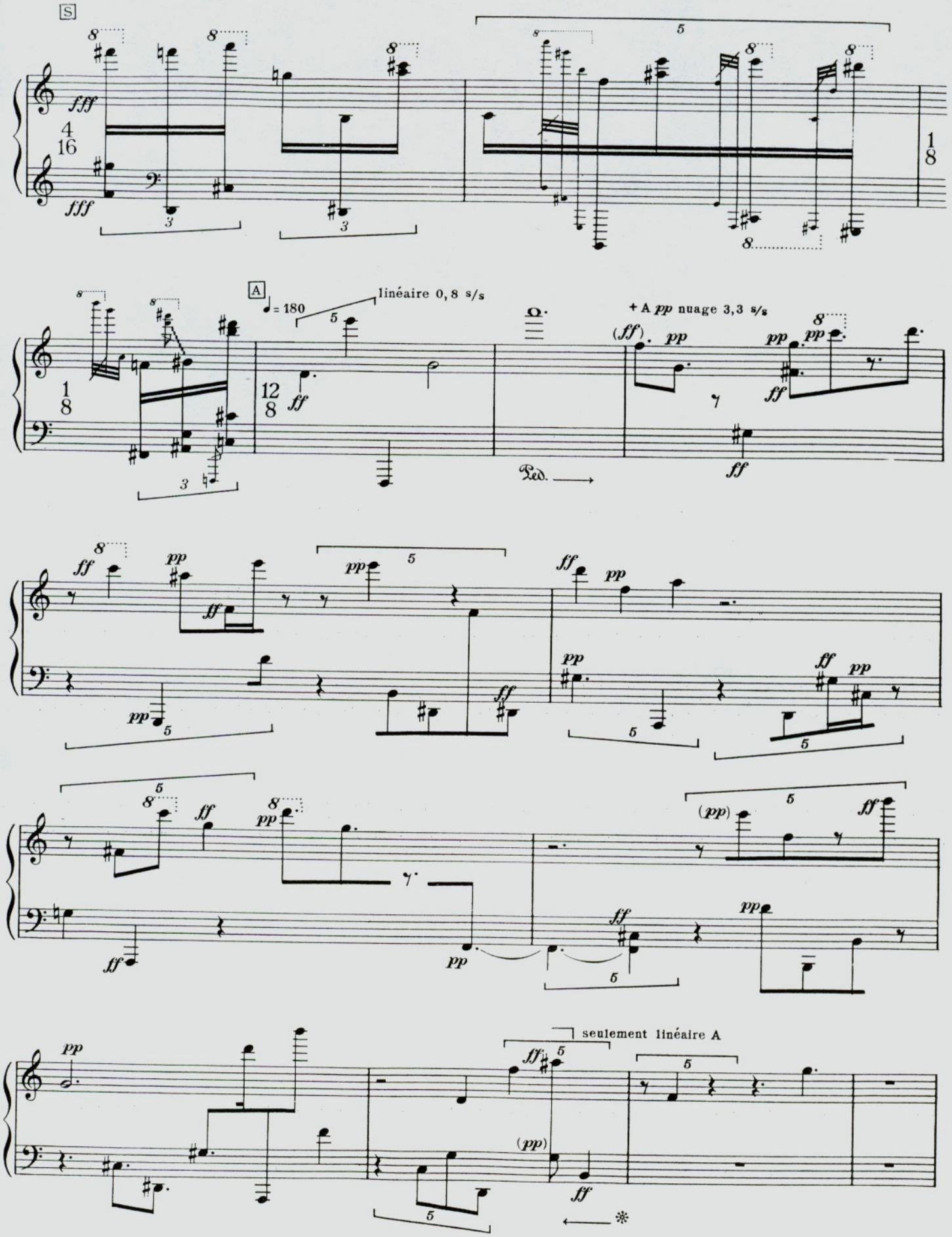

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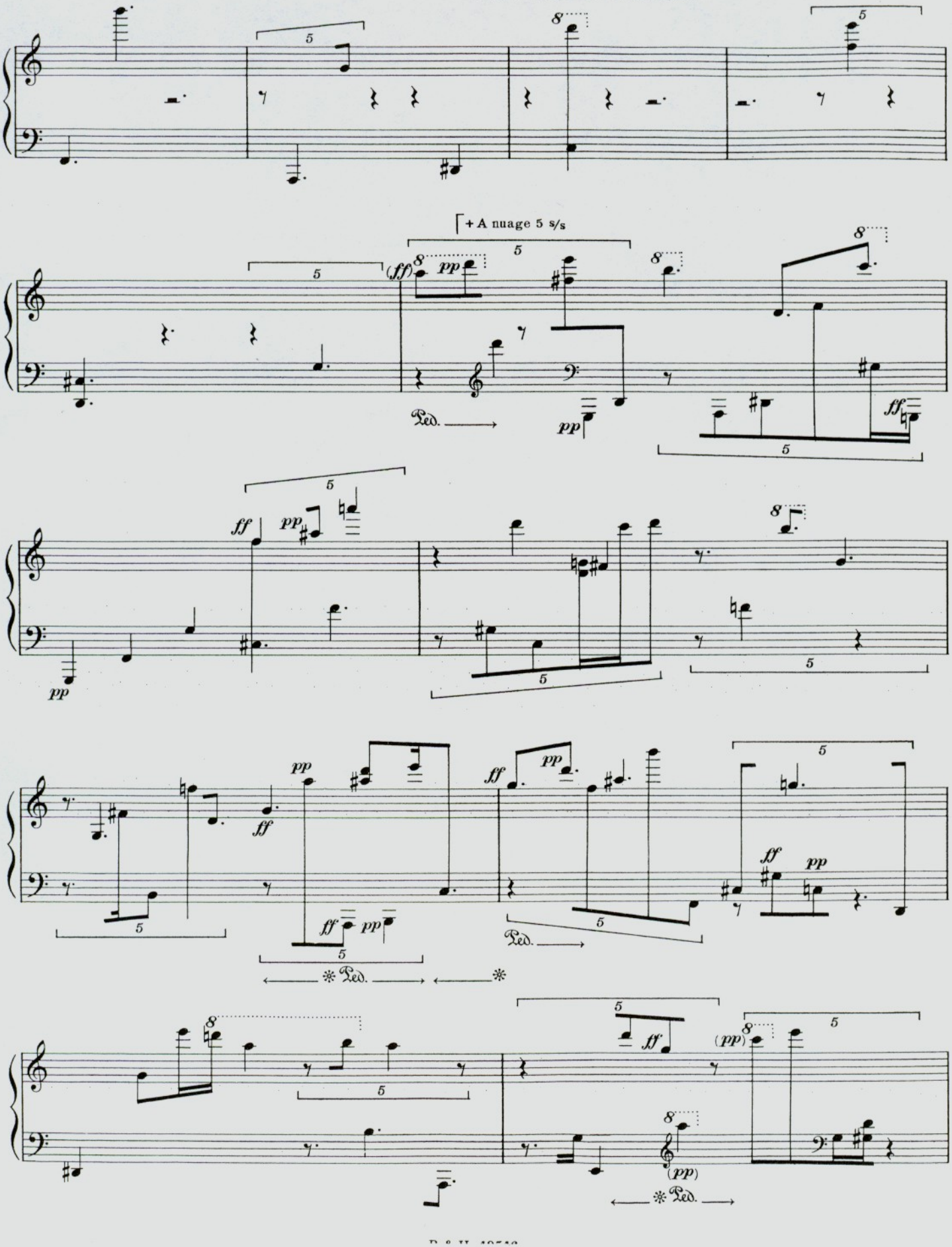

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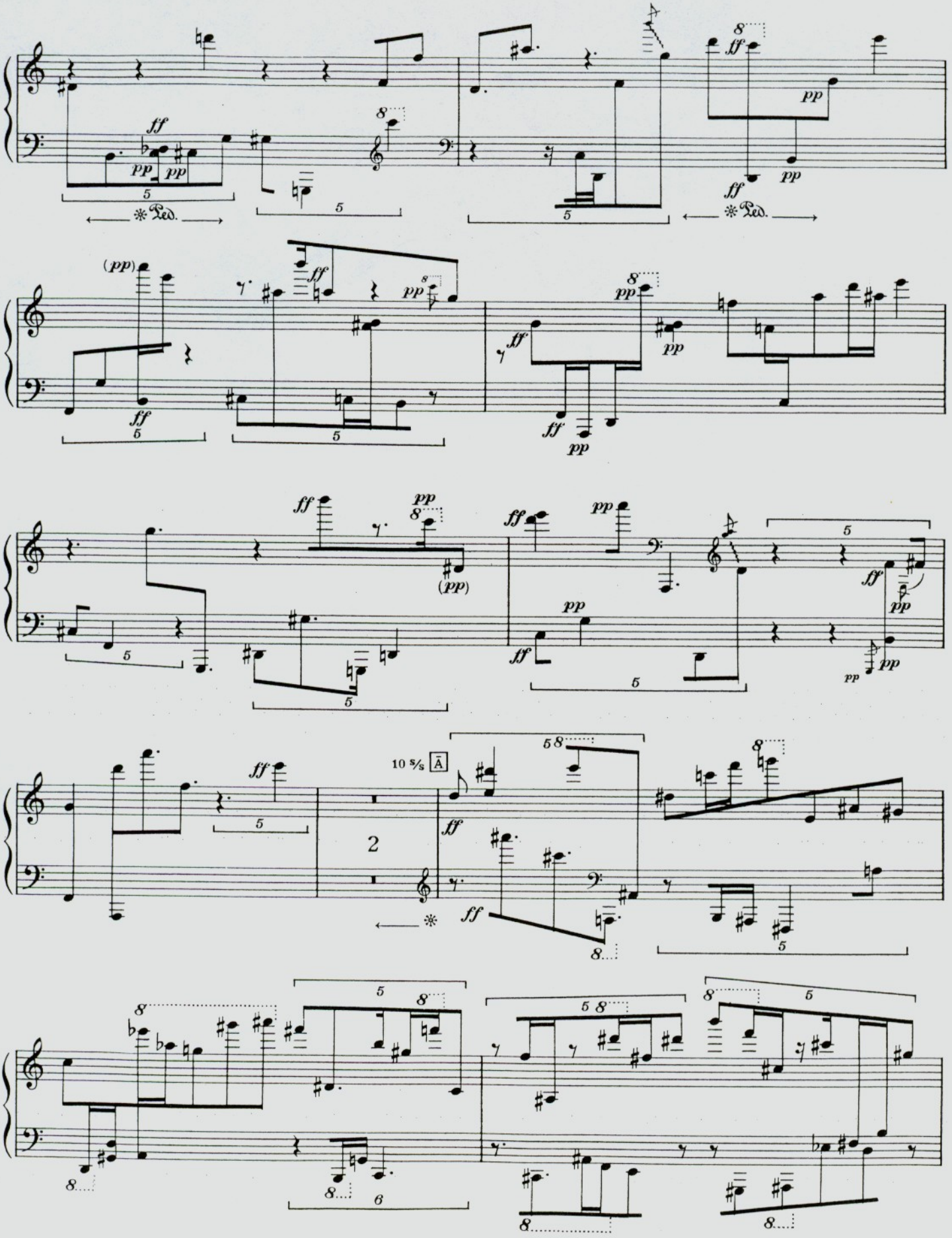

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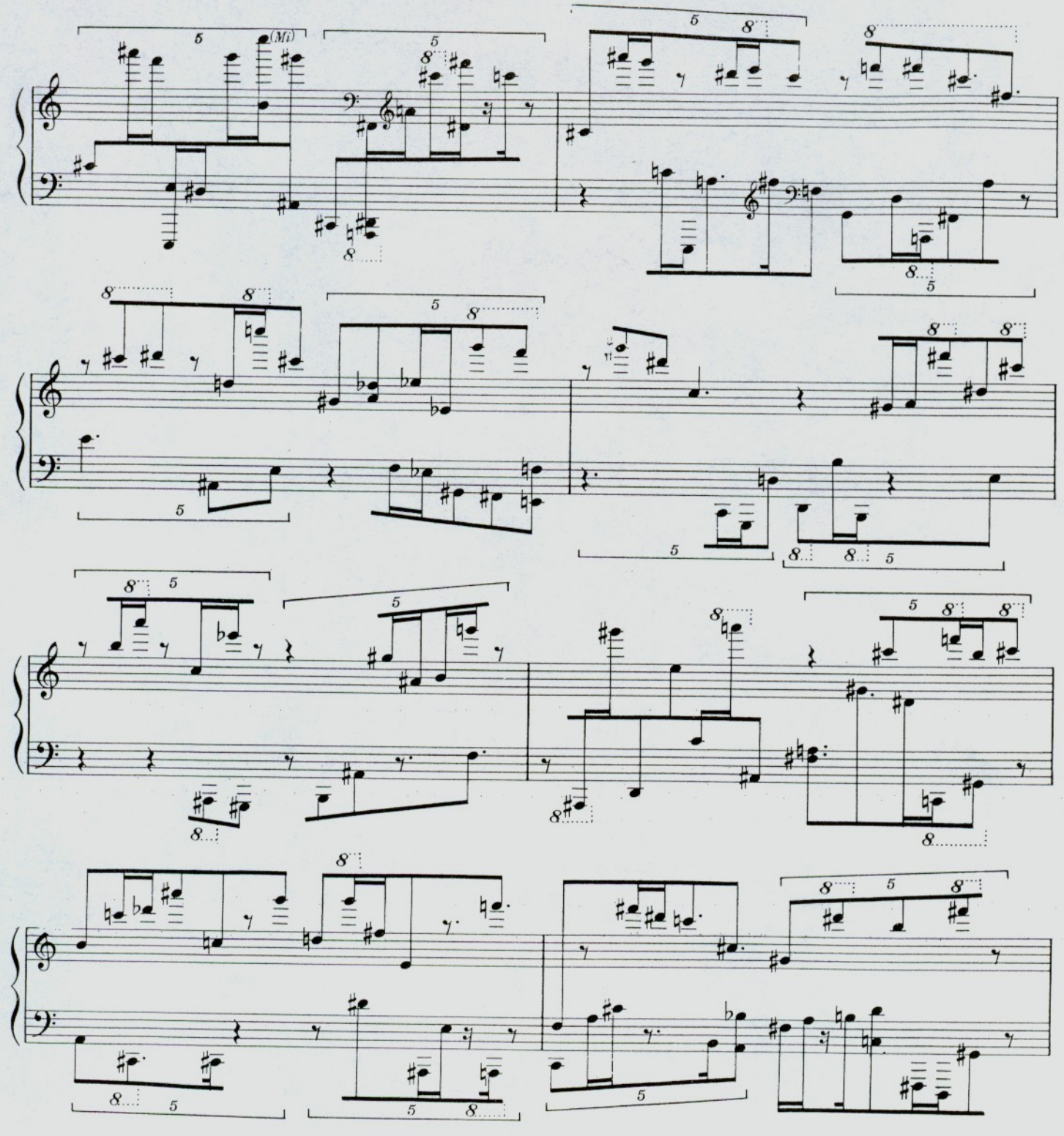

B 1,8 s/s linéaire

+ B nuage 3,3 s/s

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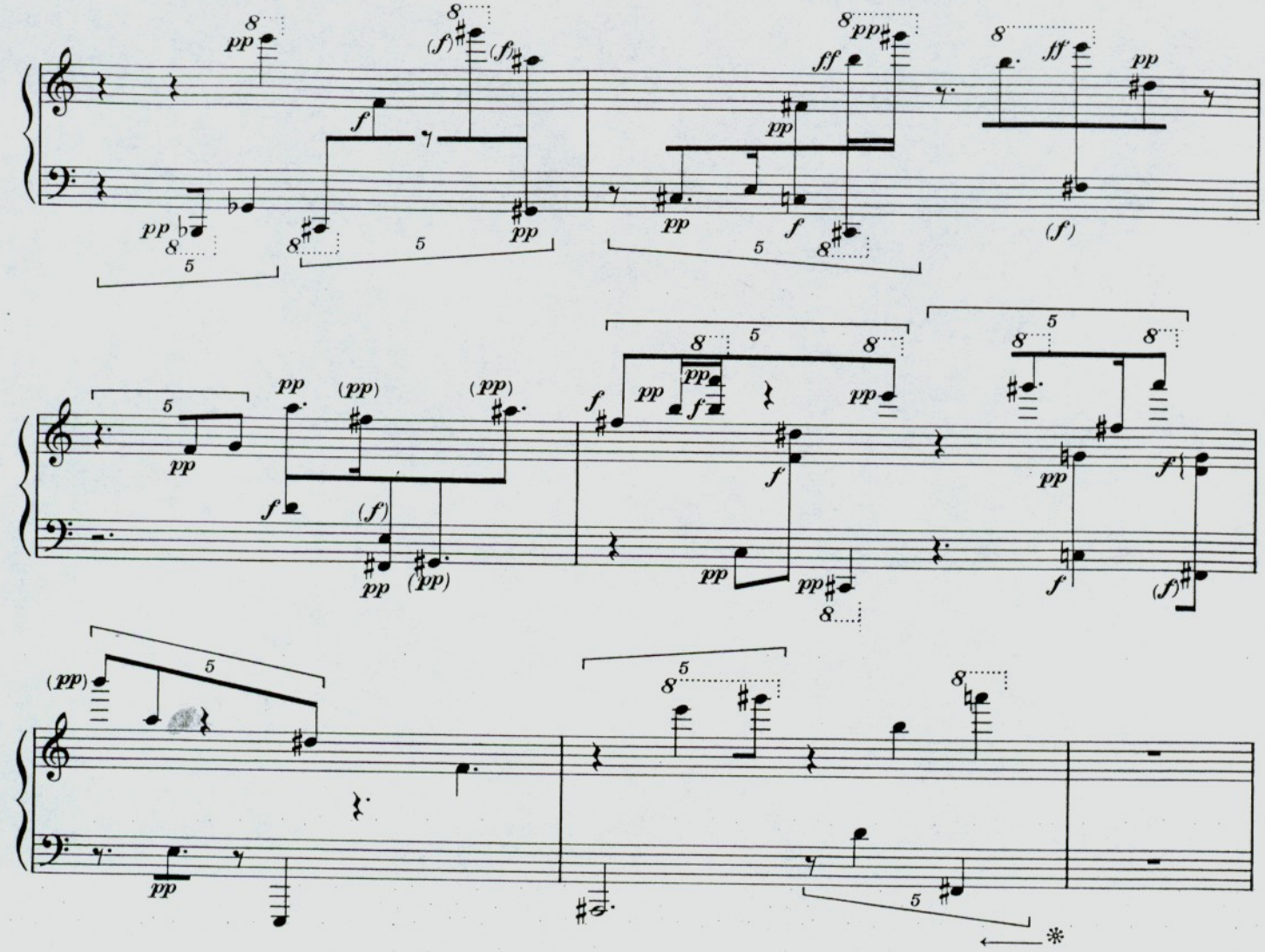
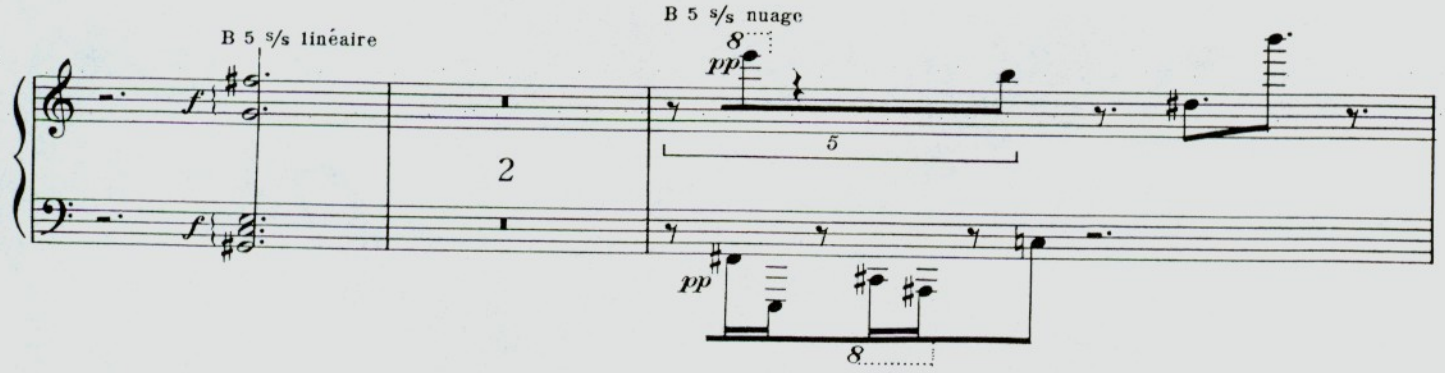
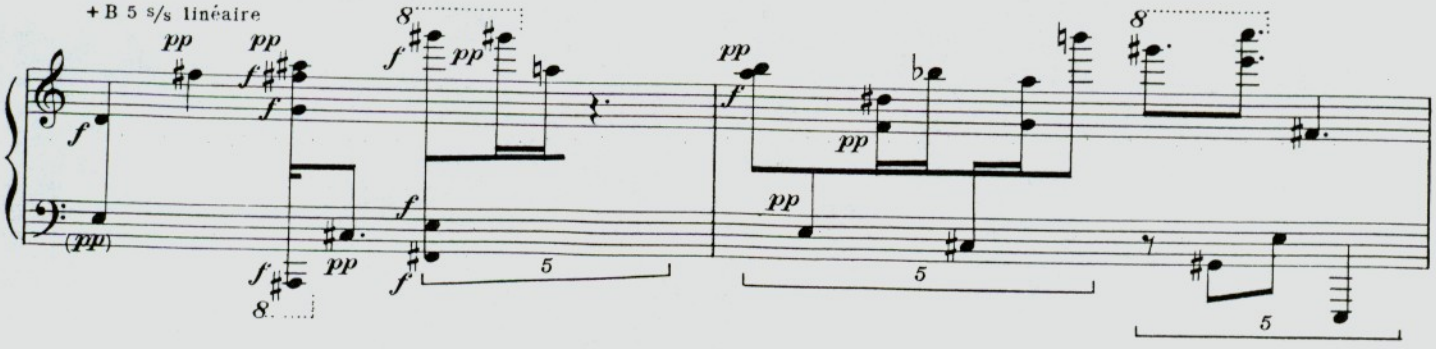


B 5 s/s linéaire

B 5 s/s nuage



+B 5 s/s linéaire



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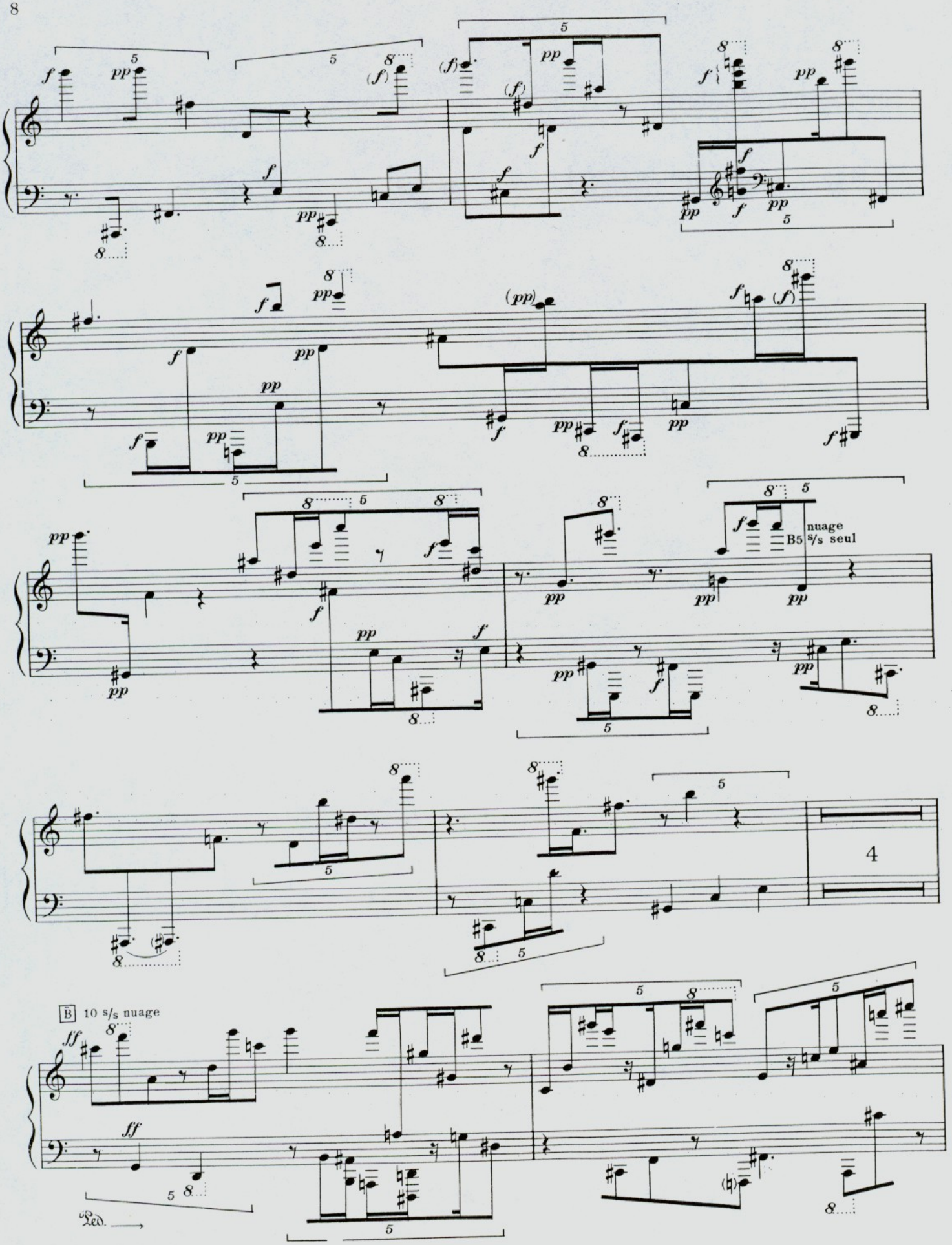

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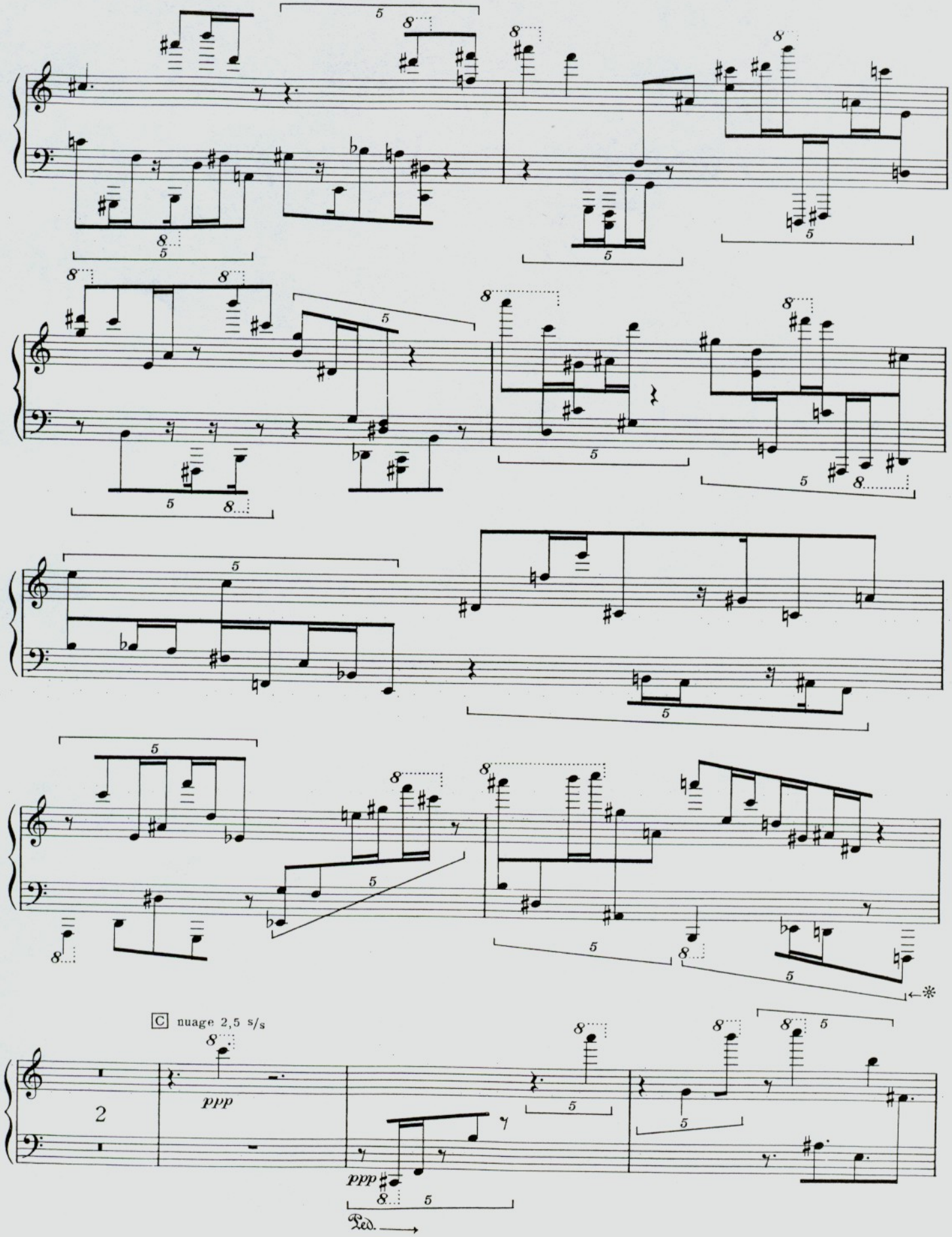

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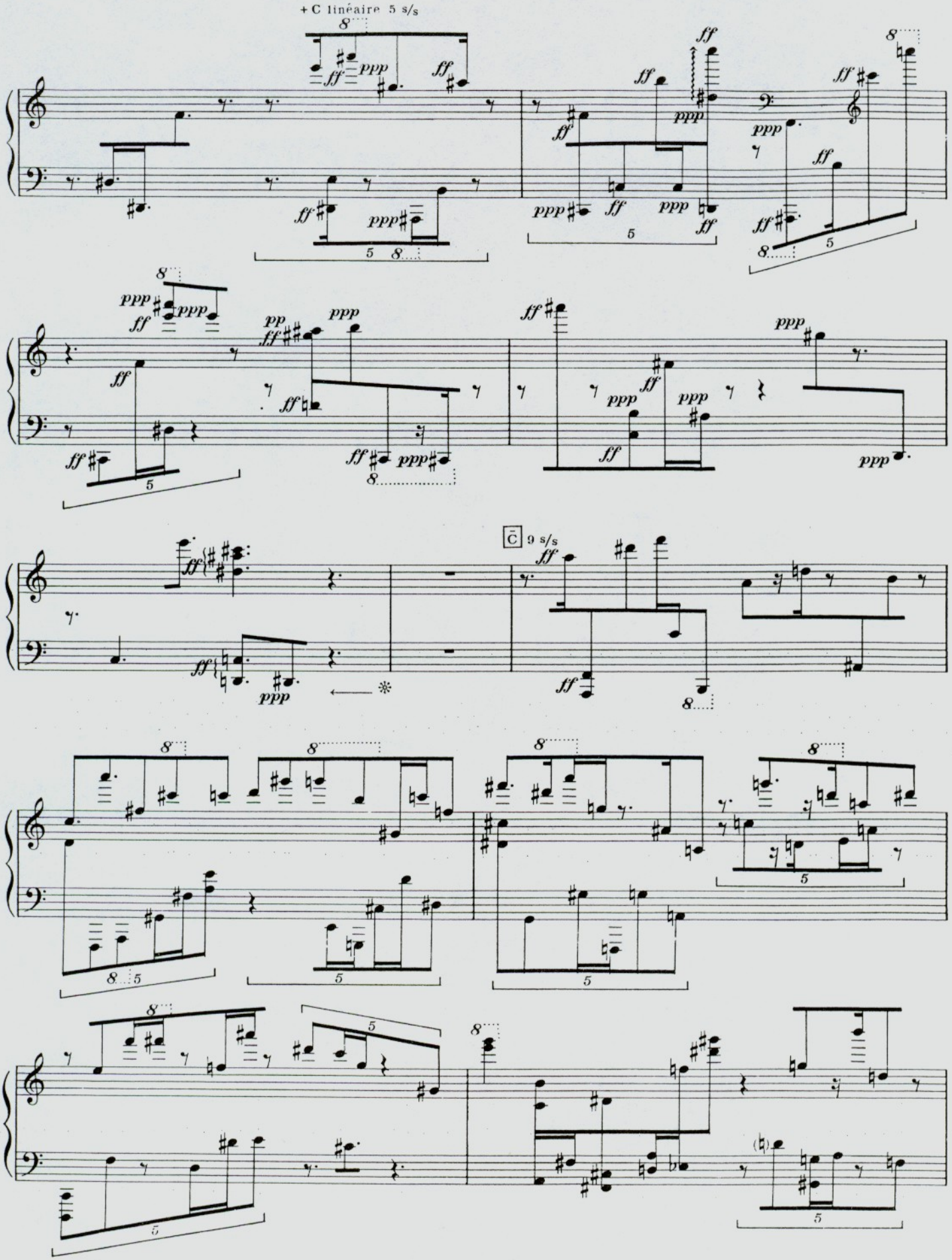

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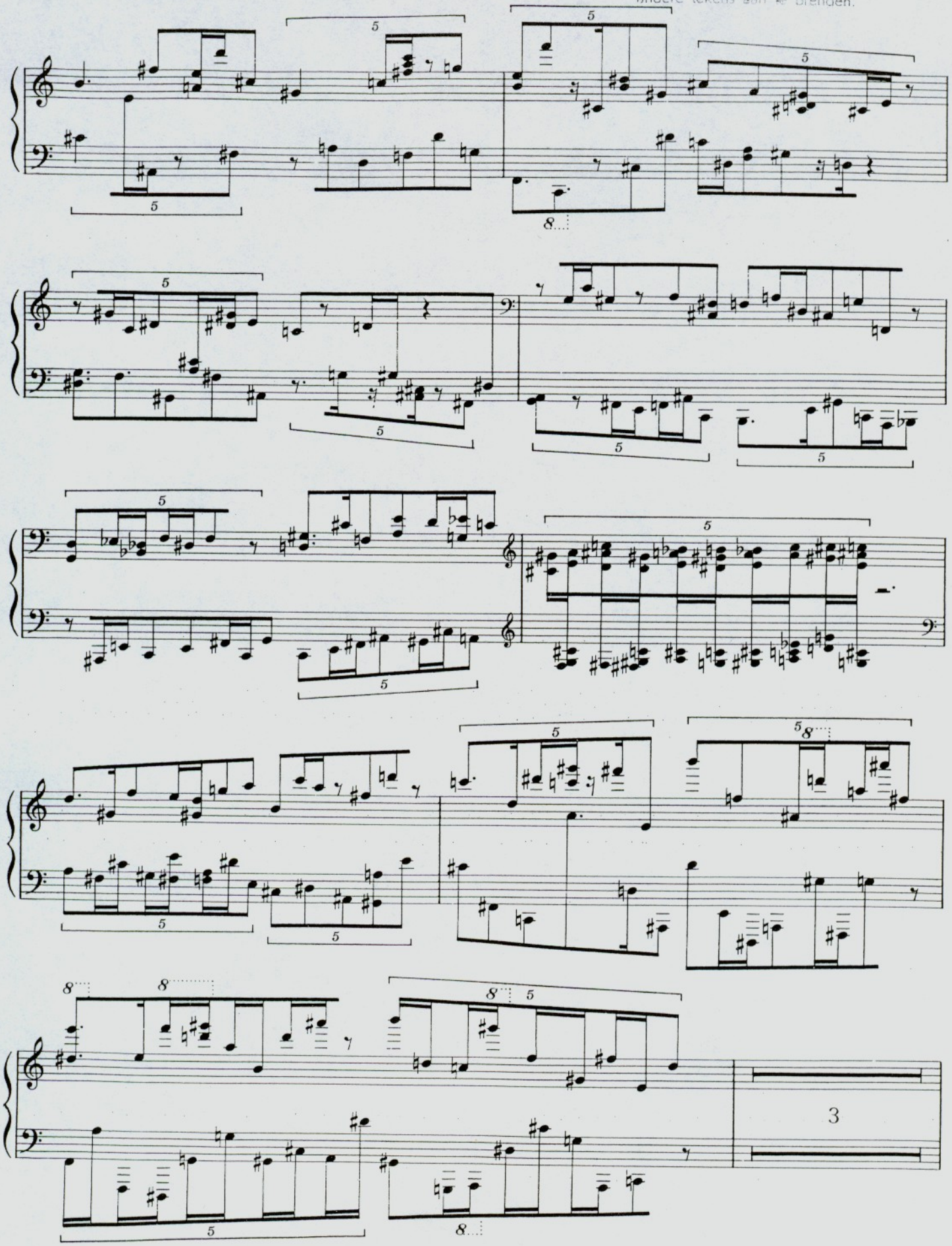

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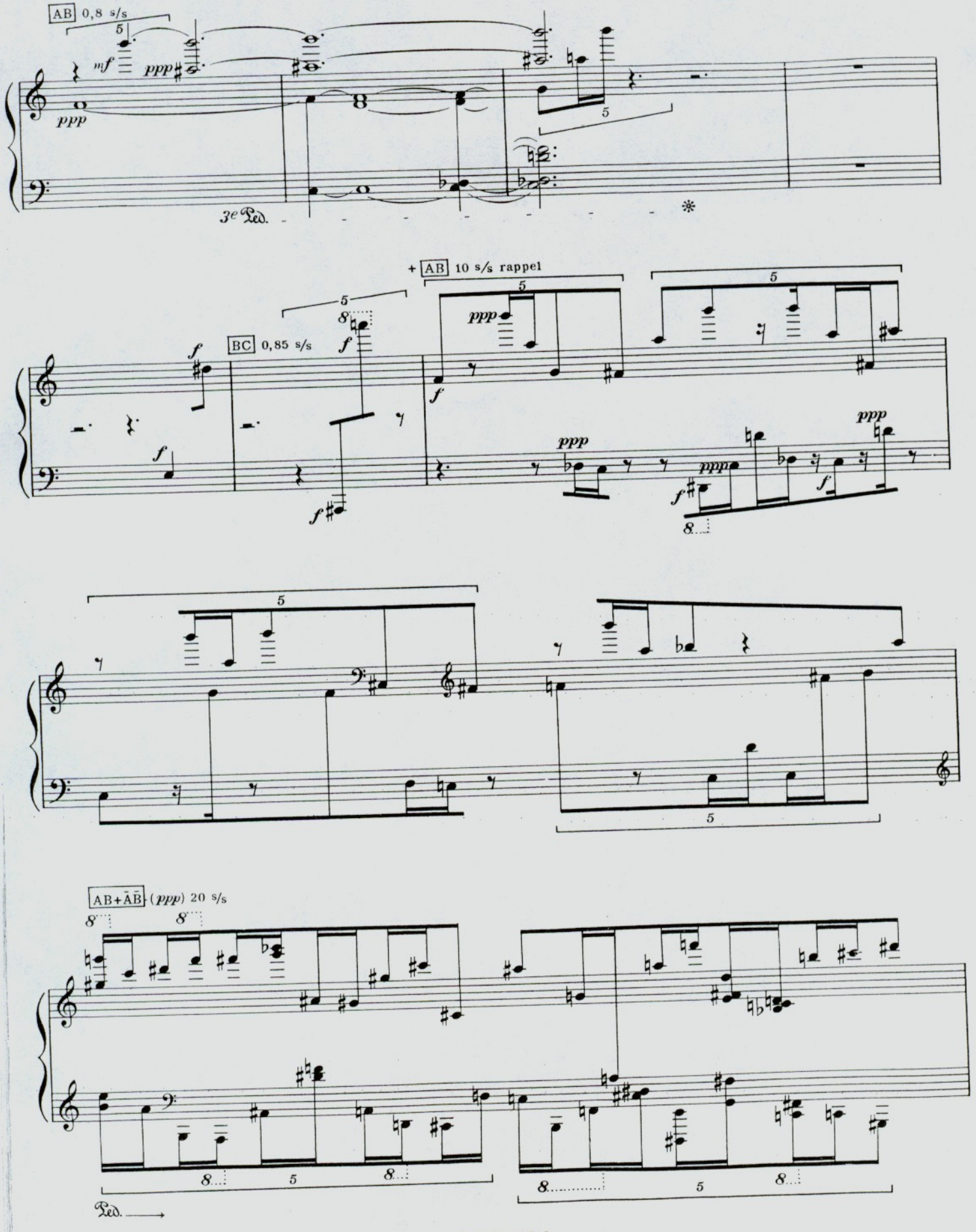

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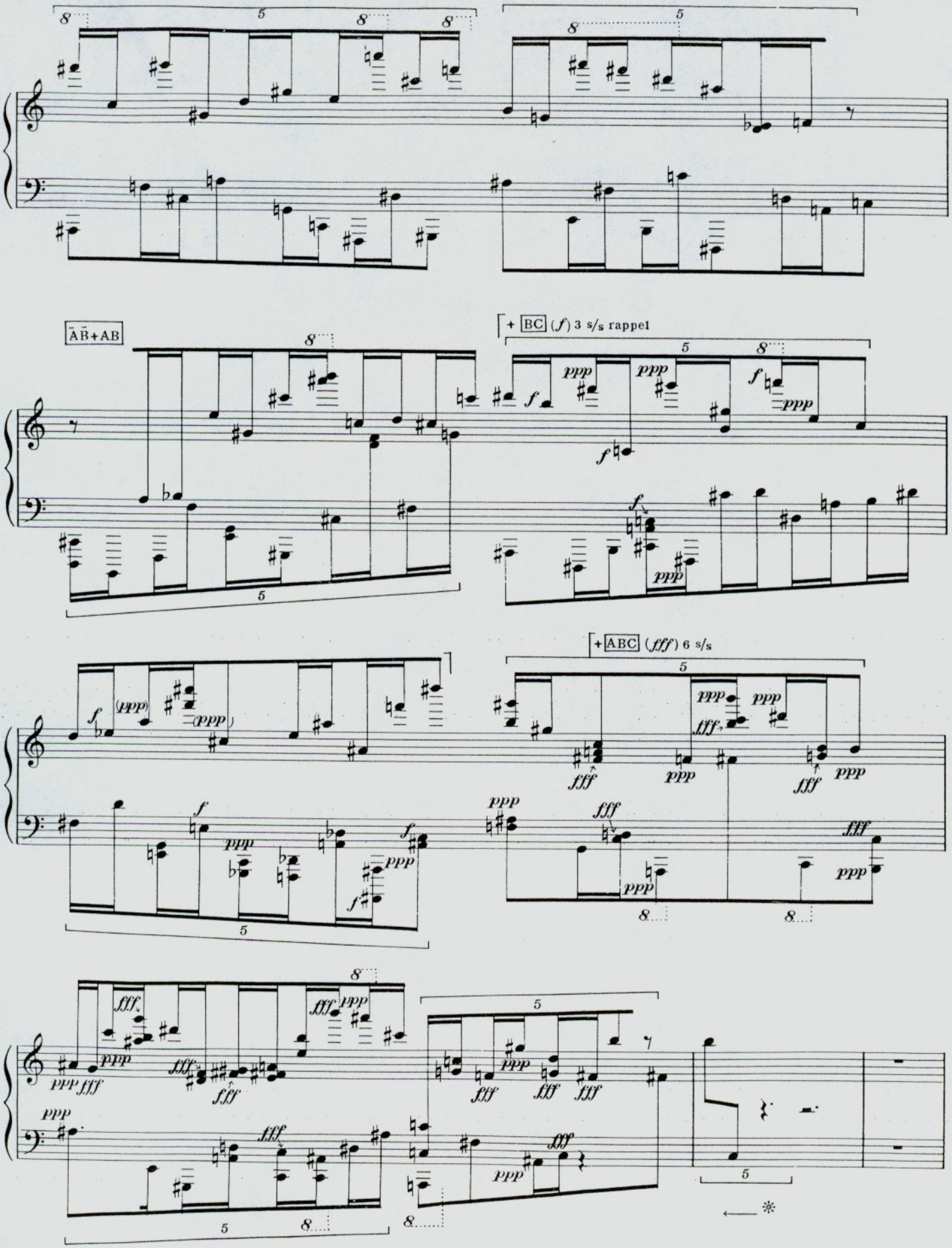

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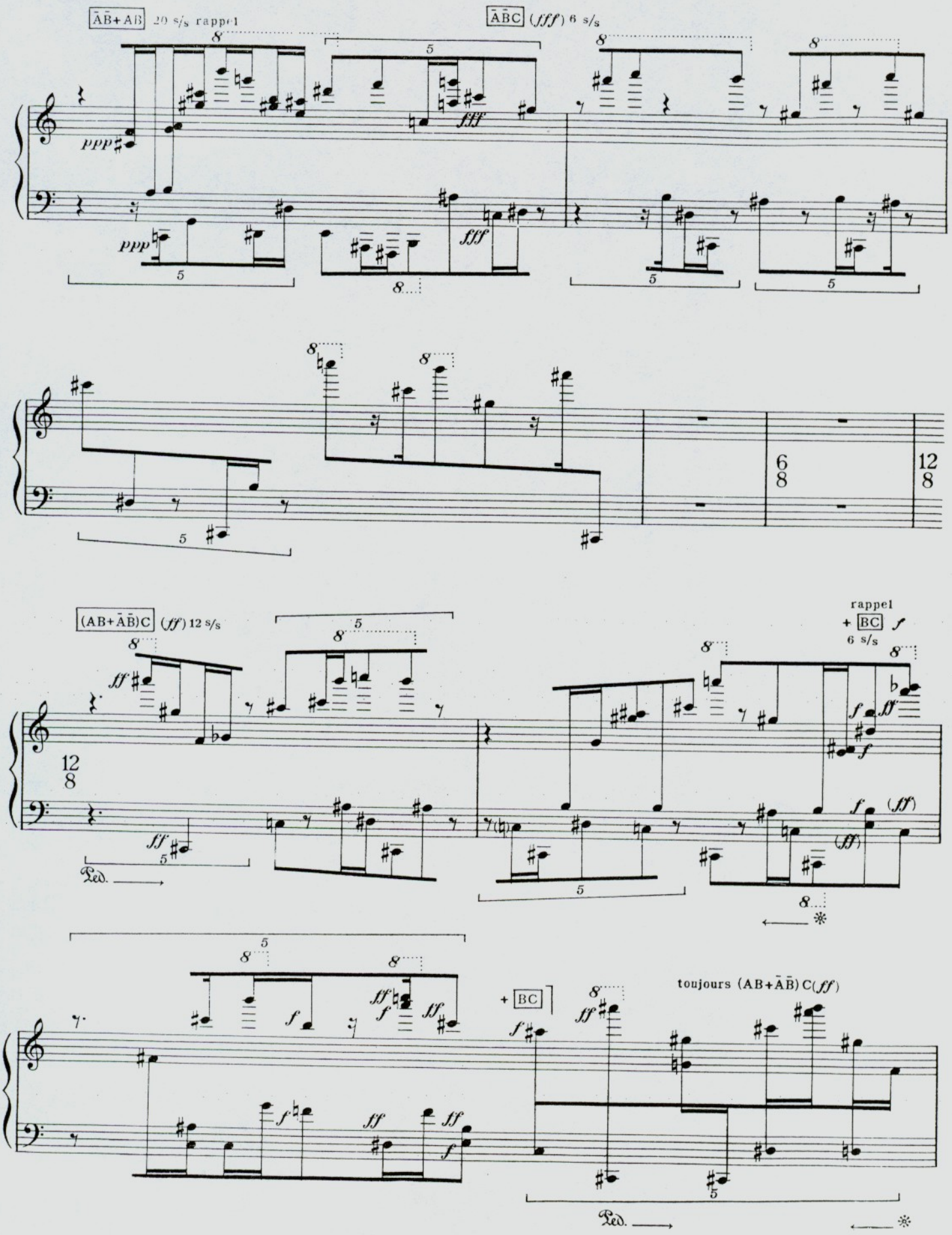

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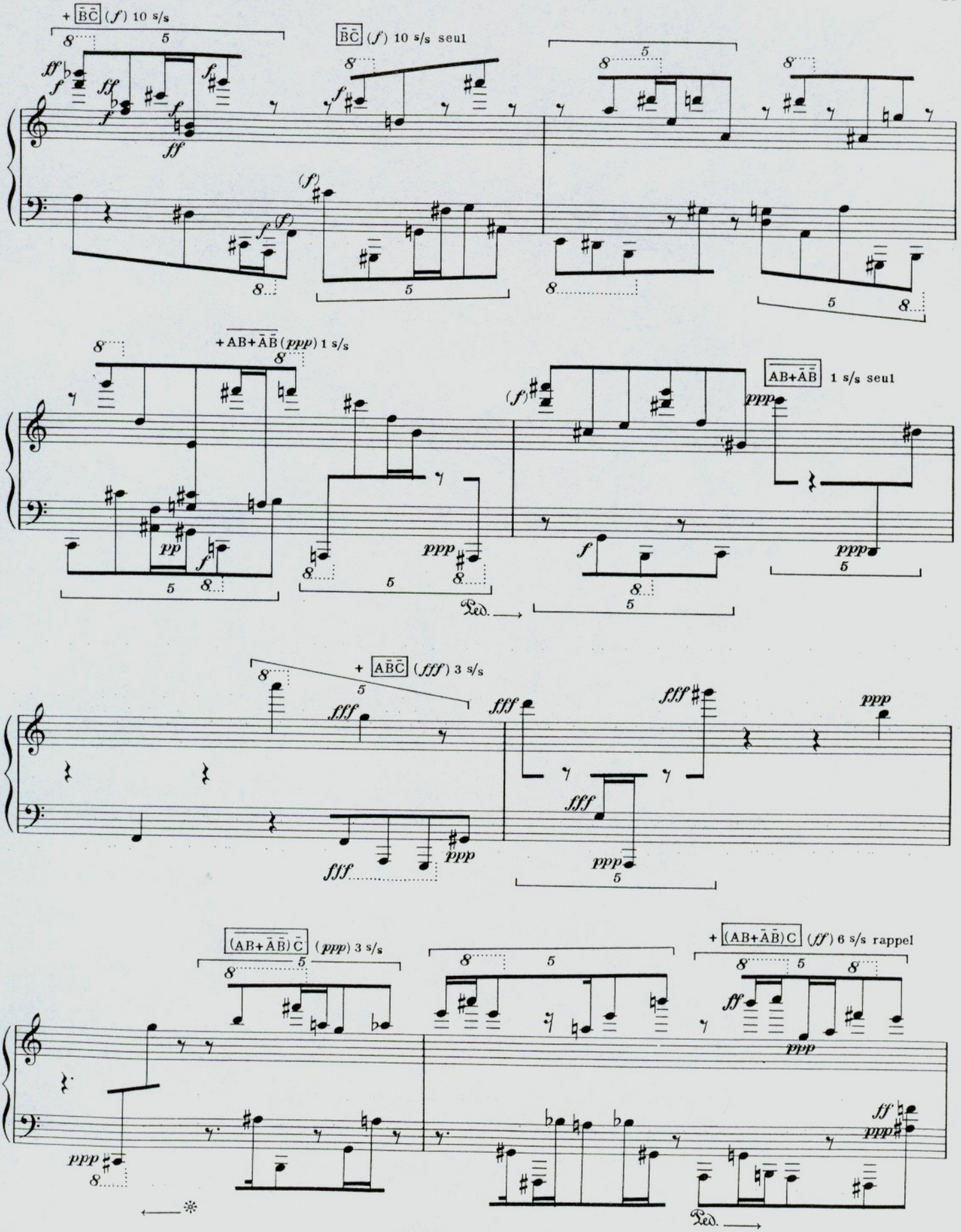

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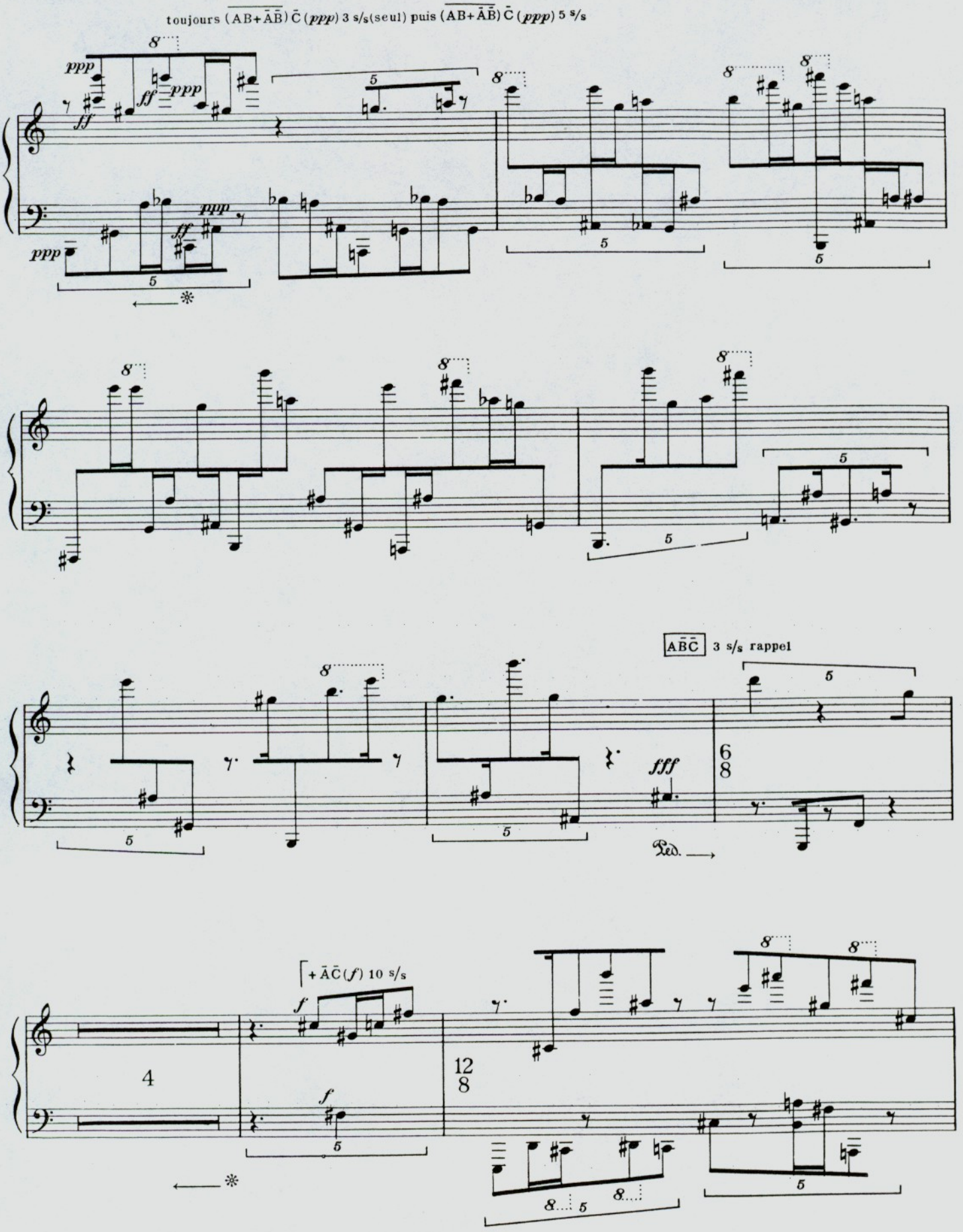

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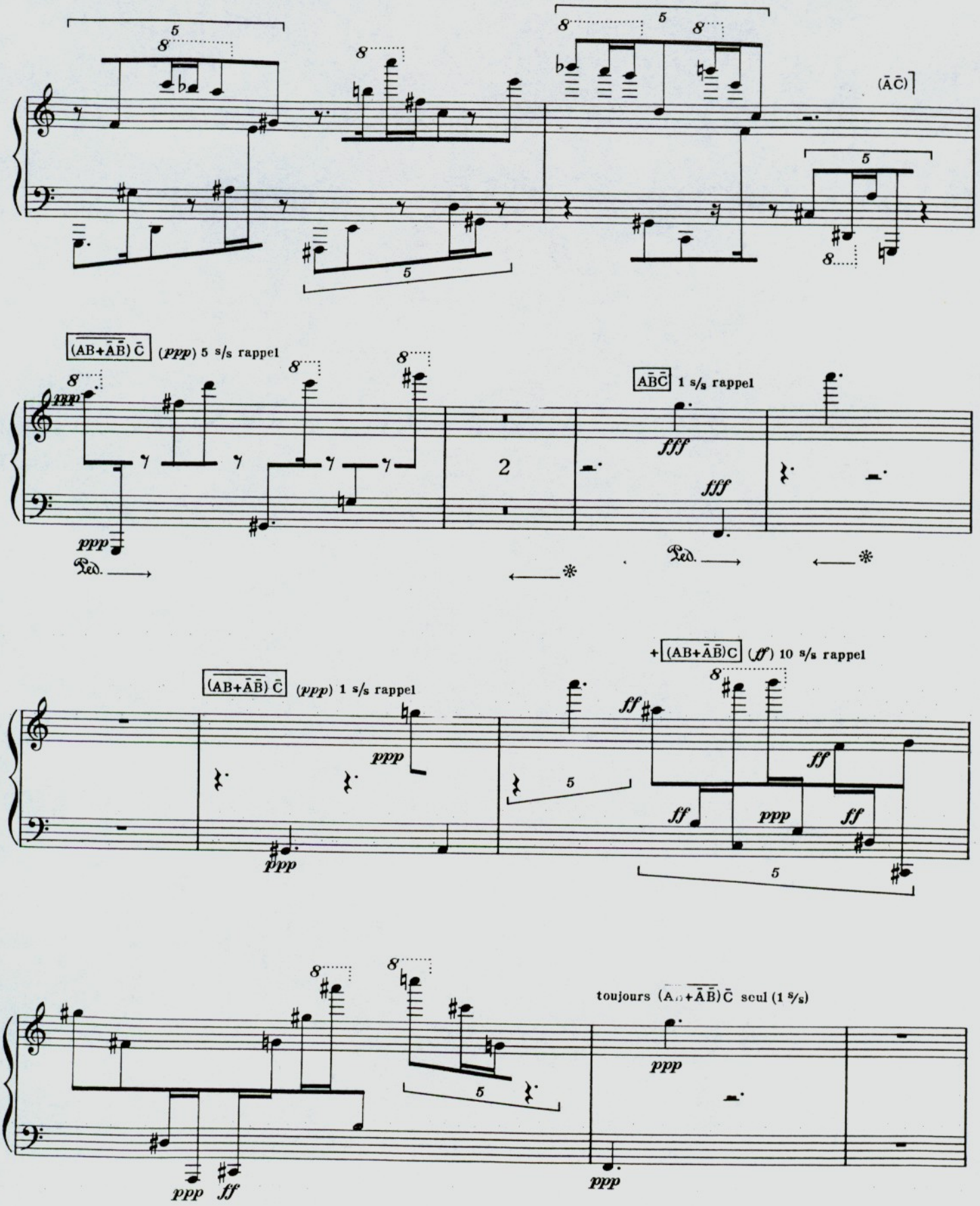

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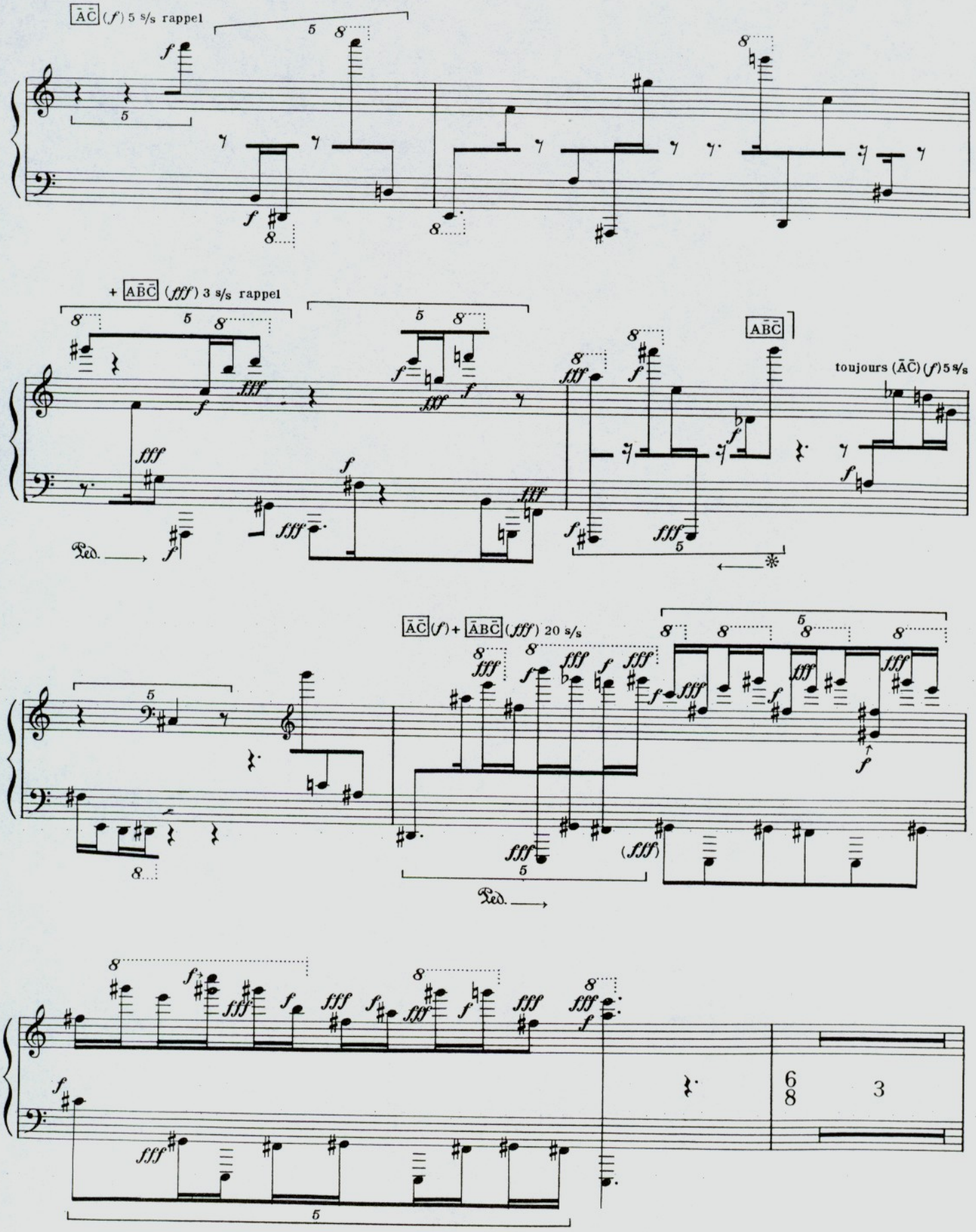

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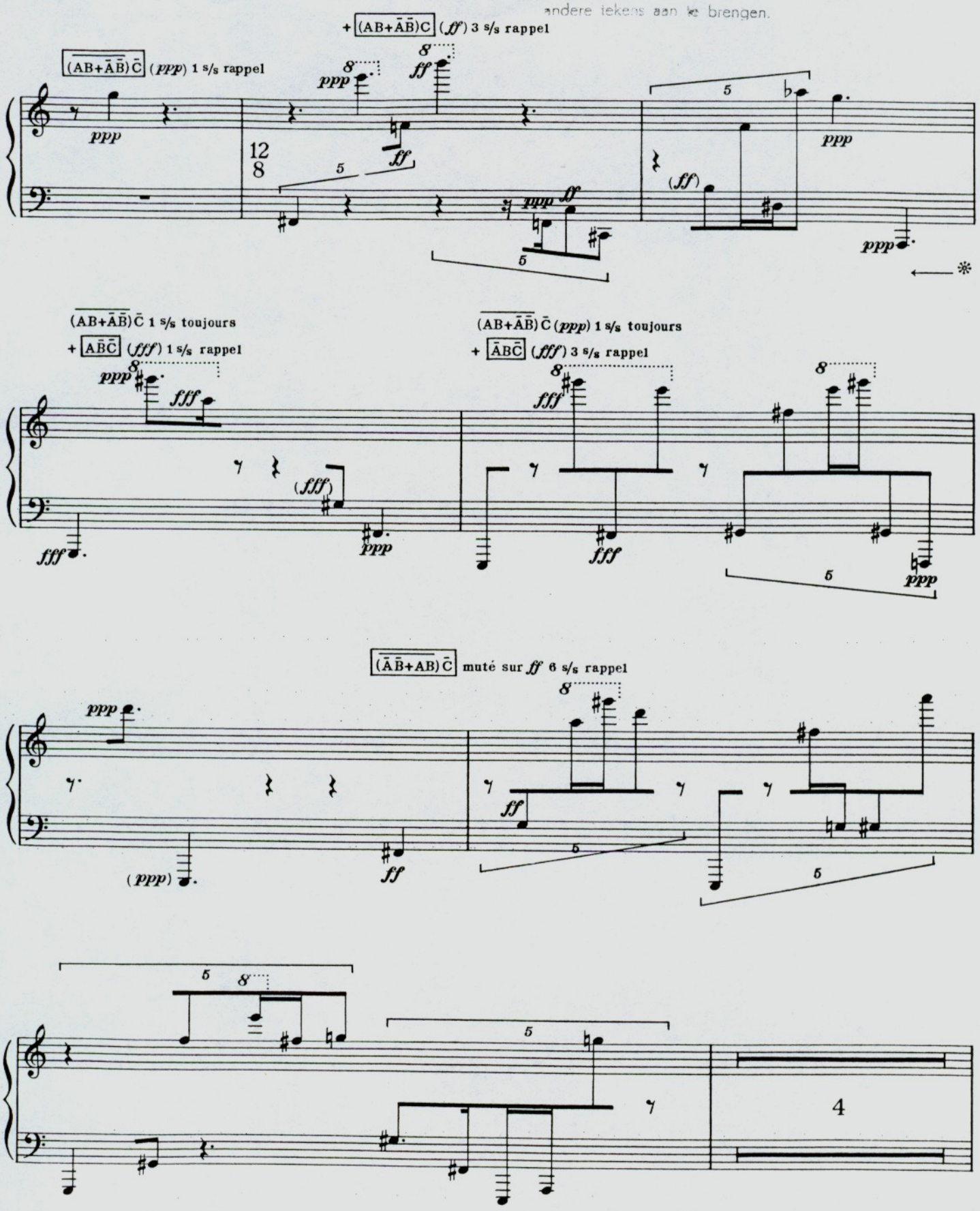

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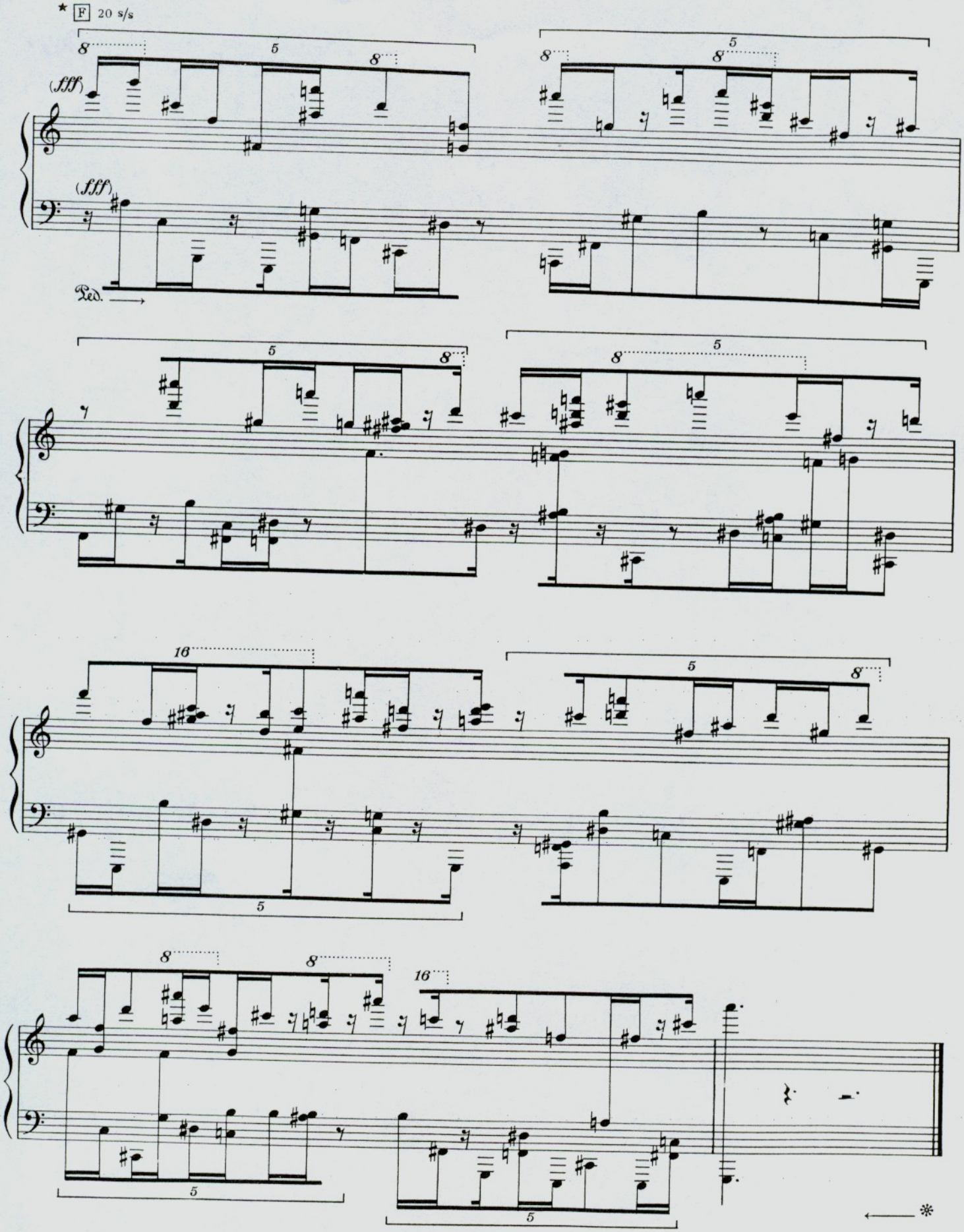

* F = ABC + $A\bar{B}\bar{C}$ + $\bar{A}B\bar{C}$ + $\bar{A}\bar{B}C$ = (AB + $\bar{A}\bar{B}$)C + $\overline{(AB + \bar{A}\bar{B})}\bar{C}$