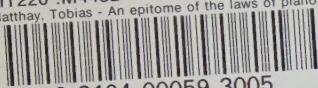


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EPITOME
OF THE LAWS OF
PIANOFORTE TECHNIQUE
BY
TOBIAS MATTHAY

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THE VISIBLE AND INVISIBLE IN
PIANO TECHNIQUE
EPITOME AND SUMMARY

PUBLISHED SEPARATELY FOR SCHOOL USE, ETC.

BY
TOBIAS MATTHAY

By the same author — in the order of publication:—
“The Act of Touch,” “First Principles,” “Some
Commentaries,” “Relaxation Studies,” “Musical
Interpretation,” “The Child’s First Steps,”
“Forearm Rotation,” “On Method in Teach-
ing,” “On Memorizing,” “Pianist’s First Music-
Making,” “First Solo Book,” “Nine Steps
towards Finger-individualization,” “The Slur or
Couplet of Notes” and “An Epitome of the Laws
of Pianoforte Technique.”

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E P I T O M E
OF THE LAWS OF
PIANOFORTE TECHNIQUE

Being a *Summary* abstracted
from

“The Visible and Invisible”

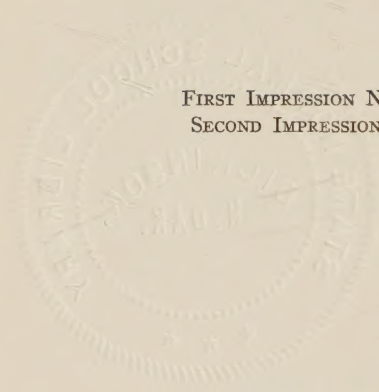
A DIGEST OF THE AUTHOR'S TECHNICAL TEACHINGS

BY
TOBIAS MATTHAY

For School Use, etc.

11433

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FOREWORD TO EPITOME

This Epitome forms the Summary of "The Visible and Invisible in Piano-playing" — a complete Revise and Digest of my teachings up to date. The Epitome is complete in itself, being designed for separate publication as a School Text-book. I have been urged to issue this at once, without awaiting the publication of its parent work, the demand for such Epitome appearing to be imperative. The Daily Maxims and Final Precepts appended form a concise survey of the most vital points of the subject. When more detailed information is required, refer to the same Section in the Digest itself, and to my earlier works.

TOBIAS MATTHAY

“For teaching is only of whither and
how to go, the vision itself is the
work of him who hath willed to see.”

Plautinus

The Visible and Invisible in Piano Technique

PREFACE

It is now over a quarter of a century since my "Act of Touch" appeared — in 1903 — my first essay on Pianoforte Technique.

Necessarily it was cumbrous, since there was then little, if any, common-sense knowledge of the subject; and as the great majority of the ideas I had put forward were new, these were of necessity protected and fenced round with defensive arguments. But now all this has changed, the basic principles of my teachings are generally accepted, and indeed have become axiomatic as pianistic knowledge.¹

True, some things which then seemed of the gravest importance have since passed into better perspective, while others, which then seemed almost subsidiary, have since loomed up into greater prominence. I have endeavoured both to clarify and simplify, enlarge and modify, my ideas in subsequent books and lectures, which have become more and more concise in utterance as the facts have become more widely accepted,—indeed my last booklet "The Nine Steps towards Finger Individualization" covers only four pages!

However, I feel the time has now come when all this material should be gathered together, for the convenience of teacher and learner, and also to prevent misunderstanding as to what my

¹In fact they have become so much "Common Knowledge" that they are no longer attributed to me! Already in 1913 the "Musical Times" wrote: "And now? The one man's fad (as it had been supposed to be) has within ten short years altered radically the whole system of modern pianoforte teaching. . . . Probably never before in art has an almost world-wide revolution been accomplished in so short a space of time."

teachings *really are today*. In fact, there have been issued lately a number of *piratical works and writings* founded on my ideas, sometimes avowedly so, which, while showing much felicity in expression, are nevertheless inadequate, and most inaccurate upon very important matters, thereby forming actual *perversions* of my teachings. To mention only one instance, these writers have almost entirely overlooked the important changes of state of exertion and relaxation of the playing limb which form THE REAL BASIS OF GOOD TECHNIQUE, but which, *being invisible*, have escaped their attention. Hence I feel that it is most urgent that the present AUTHORITATIVE work be issued by me, and trust that it will serve as a corrective to so much spurious "Matthay teaching" which is to be met with today.

It will be seen that I do not here more minutely stress the locality of muscles or anatomical details at greater length than I thought fit in my first work, "The Act of Touch." There is good reason for this. The fact remains, that beyond certain quite simple generalizations, the attempted realization of the precise locality of the muscles concerned is not only futile, but is bound to impede the learner's progress, since it must take his attention away from the points where it is most directly needed. Anyway, it is futile, since it is practically *impossible*, both physiologically and psychologically, for us to influence or provoke any particular muscle *directly* into action, however hard we may try. No muscle responds that way! Moreover, were such attempt possible, it would indeed be hopeless to essay *so* to impart or acquire the correct playing actions, considering that even the most simple actions of our limbs (both the visible and the invisible ones) require a complexity of muscular interplay that would at once render such problem unthinkable.

Moreover, the precise action of the deeper-seated muscles in playing is still largely a matter of conjecture.

What we *can* learn and *should* teach is what may be termed the general *Muscular Mechanics* of the limbs we use. We can learn which section of the playing limb should be exerted and

which should be left lax; and by thus willing the desirable LIMB-stresses into action and by inhibiting the undesirable ones, the concerned complex muscular co-ordinations will indirectly but surely be called into responsive operation. This basic principle which underlies all my technical teachings is also carried out in the present work.

Our business as teachers is to make clear to the learner which are the *limb*-stresses (both visible and invisible) needed in playing, and which are the ones to be avoided. It is the only way by which the learner can be directly helped.

The physiological aspect of Touch and Technique is usually found to be the most difficult problem to grasp by the learner. Necessarily it is complex. It is here that the most fantastic notions have arisen in the past, and are indeed still lamentably evident even in the work of some writers of today, who ought to know better.

To ensure that consideration of the necessary details does not jeopardize the true apprehension of the subject as a whole, I have planned my work on the same lines as in actual teaching; although in teaching one is able to bring the *details* to the notice of the pupil as required at the particular moment.

The main physiological facts are therefore first stated broadly in Chapter IV, "*The Physiology of Touch.*" This is followed by an exposition of the details implicated in Chapter V, "*The Physiological Details.*" These are further elaborated in the succeeding Chapters. "Additional Notes" are added in further elucidation of these matters. All is then clinched in a *Recapitulatory* Section of the work — a close-up Summary, under the title of "*Epitome.*"

This *Epitome*, however, is sufficiently complete in itself to form an independent booklet, and is issued separately for *School use*, etc.,—an important mission. It is followed by fifty-five "Daily Maxims" and a page of "Final Precepts"—concise axiomatic outlines intended as constant "close-up" reminders of the main technical essentials to be kept in view alike by Student, Teacher, and Artist.

Obviously this plan entails much repetition and reiteration. But unless the various facts are thus brought into close juxtaposition in their presentation, their bearing upon each other might easily be overlooked and lead to serious misunderstandings.

While such reiteration may be resented by the casual reader, it is imperative for the *true student*. It is only by repetition of the same point under various aspects that facts are eventually brought home and grasped; and vision of the whole not lost sight of while in pursuit of the details of structure.

A genius may not need such treatment; he may see things in a flash of intelligence. Geniuses in the past have thus subconsciously realized the true processes of technique, else there never would have been any great players before the appearance of the "Act of Touch"! A work of the present nature, however, is designed as an endeavour to help the ordinary worker and Seeker after Truth; the genius, himself, may also save years of time and feel surer of his ground by taking the trouble to master the facts thus *intellectually*, as well as by "intuition."

NOTE. — Where more detailed information is desired, my older works should be referred to, preferably in the inverse order of their publication. Thus: —

"*The Nine Steps towards Finger Individualization*" along with "*The Child's First Steps*" (Joseph Williams), and its complement for Children, "*The Pianist's First Music-Making*" (Oxford University Press), "*First Solo Book*" and "*Playthings for Little Players*" (O. U. Press), "*First Principles*" and its complement "*Some Commentaries on Piano Technique*" (Longmans); "*Relaxation Studies*" (Bosworth), and finally, "*The Act of Touch*" (Longmans). Along with these should be studied (not merely read through) my most important work of all, "MUSICAL INTERPRETATION, its laws and principles" (Williams); and the recently issued supplement to this "*The Slur or Couplet of Notes*" (O. U. Press); also when needed: "*On Method in Teaching*," "*On Memorizing*" (O. U. Press), "*Forearm Rotation*" (Williams), etc., etc.

I wish to acknowledge the great help I have had with my proofs from my devoted disciple Alvin Goodman.

NOTE. — Also I must thank Miss Helen Marchant for her patiently devoted work as stenographer and typist.

TOBIAS MATTHAY.

HASLEMERE. SURREY, ENGLAND.
April, 1931.

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EPITOME AND SUMMARY

FROM

The Visible and Invisible
in Piano Technique by

TOBIAS MATTHAY

Section I

THE MEANING OF TECHNIQUE

1. The sole purpose of Technique should be to express Music. It is useless therefore to practise Technique as such.

2. While trying to gain this technical equipment to express music you must unremittingly give close attention to Music itself. Not to do this is self-defeating and harmful.

3. To try to acquire Technique (as in the past) without constant reference to Music itself is just as stupid as trying to learn the use of the cricket-bat, tennis-racket or golf-club without reference to the ball!

4. Definitely to give musical-attention, you must successfully *imagine* the precise Time-place and Tone-place needed for every note you play, and you must also choose the *kind* of Tone, and precise Duration required for every note.

5. Likewise, to enable you definitely and purposefully to *sound* (and use) the Piano-key you must give to it the *same* definite attention (as to Time and Tone) for every note you play.

6. Musical attention and Technical attention therefore equally demand Time-attention and Tonal attention. Here they meet and become *one*. It is the only way you can bring them into close association and co-operation. There is no other way.

NOTE. — It is the only way to avoid strumming, and the only way to make your hearer listen to you with pleasure.

7. Therefore you must never dissociate these things, not even in your first attempts at the keyboard.

8. In short: during Practice and Performance never allow your Time-attention to flag for a moment.

9. The four main aspects of Rhythmical Attention in playing are: —

- | | |
|---|--|
| { | (a) You must <i>time</i> the movement of the key itself towards Sound. |
| | (b) You must feel the swing of each group of quick notes towards the pulse ahead. |
| | (c) You must feel the <i>growth</i> of each phrase-unit to its climax near the end of each phrase; and |
| | (d) You must realize the Growth of a Movement into a Whole. ¹ |

NOTE. — To enable you to “think” Music and Technique, you must thus feel the sense of Progression or Movement all the while you are playing.

Section II

THE PHYSICAL ASPECT

— *How you must use the Piano-key*

1. The “hopper” action of the key-mechanism allows the hammer to fall back at the moment you have struck the string with it — otherwise it would jam against the string and stop the sound.²

2. Consequently, once the key is down you cannot do anything further to make the sound.

NOTE. — In fact, when you *feel* the key’s motion *stopped* by the keybed the hammer has *already* struck the string and made the sound. All you can do after this is to keep the damper up, and thus allow the string to continue sounding — but you are not then *making* any sound, you are only allowing it to continue.

¹ See Chapter II, *Musical Interpretation* — Joseph Williams.

² See *The Act of Touch*, Chapter VIII — “*The Instrument.*” (Longmans, Green and Co.) You will there find an illustration of the Piano-action, and full explanation of it.

3. You can only produce sound by *making the key move*.

4. The louder you wish the sound to be, the quicker must you move the key down.

5. To obtain the best result from this tone-producing motion you must never hit or jerk a key down.

6. Instead, you must always produce the down-speed *gradually* — by acceleration.

7. This acceleration during descent must be not only “gradual,” it must be at an *increasing* rate of increase as the finger goes down with the key — it must be at “increasing ratio.”¹

8. It does not matter whether you call the result a better *quality* of tone, or merely a better *controlled* tone. Unless you form this habit of *acceleration* during key-depression you cannot control the tone with nicety, and your playing will always be unmusical to the extent that you are careless in this respect.

9. For *ppp* you must exaggerate this solely correct form of key-attack. Here you must bring the key down some two-thirds of the way before you give it the final little tone-producing swing.

10. You can only stop the sound by allowing the key to rise, when the damper at once returns to the string and stops its motion.

11. For a true Staccato you must allow the key actually to rebound — with your finger-tip on it.

12. Tone, in the making, can never take longer than it does for the most absolute *staccatissimo*.

13. It takes no more force to hold a key down for Tenuto or Legato, than it does to sound it at its softest. In fact, it takes rather less.

¹ The principle applies *in a measure* even for the sharpest percussion touch.

Section III

ACCURACY OF TONE, AND THE *LINK* BETWEEN MUSIC AND TECHNIQUE

1. Your playing cannot sound musical unless you *mean* every note of it rightly.

2. You can only *produce* your musical intentions tonally by using your "key-sense" for each and every note.

3. "Key-sense" means *physically feeling* how much force is needed before and *during* each key-descent, and applying this force in due acceleration for each note.

4. Your feeling the key's *resistance to motion* in this way is mainly a muscular-sense — a sense of work being done during key-descent — it is a *Work-sense*, in fact.

5. You cannot purposefully produce any note nor can your playing sound intentional and musically intelligent unless you use this *work-sense* for every note.

6. You can only tell *how short-lived* is the force needed to produce the tone by *listening alertly*.

7. By thus listening, and also feeling the key, your musical and technical attention become *one* and indivisible.

8. Your playing cannot mean anything musically unless you do thus both *listen* and *feel* for every note.

9. **To Sum Up:** (1) You must feel the key *before* and *while* you move it down; (2) You must feel it *while* you are holding it down; and (3) You must feel *its coming up* — you must feel the *cessation* of the holding-down action; and unless you do this last you cannot be sure of your Duration effects — i.e., the precise length of your *tenuti*.

Section IV

THE PHYSIOLOGY OF TECHNIQUE

1. The acquisition of any muscular habit, good or bad, is always a *mental* act.

2. You cannot teach your muscles to act rightly, you can only teach your brain to *direct* your muscles rightly.

3. "Stiffness" arises when you *exert a limb* (or portion of it), not only in the required direction, but also in the opposite and contrary direction.

4. Thus you create a tug-of-war between the two opposite limb-exertions.

To remedy this, teach your mind to distinguish between these conflicting and antagonistic limb-*states* — or conditions.

5. Two opposite exertions nullify each other completely if they are equal, but the slightest contrariness is sufficient to spoil your playing. You cannot *see* this fault, but you can *feel* it, if you are sufficiently alert.

6. Indeed, there are *three* distinct ways of "stiffening":

(1) You may use the antagonistic muscles as well as the required ones.

(2) You may jam your limb against the keybeds by playing "too late,"¹ and

(3) You may allow the psychological effect of Fear to cause you to contract more or less every muscle in your body!

7. By no possible effort of mind can you *directly* actuate any muscle. You can only actuate a muscle by vividly imagining and *wanting* the required action or exertion OF YOUR LIMB. And you can only achieve free action of the limb by *wishing* its action to be free.²

¹ That is, by continuing the effort *intended* to produce tone after the tone is made!

² This applies both when you need an actual movement and when you need a stress *without movement*.

8. Therefore do *not* try to think of the actual muscles used, or their locality. This will only lead to self-consciousness and stiffness, and will inevitably hamper you in the acquisition of easy technique and sure musicality of expression. Remember, you can only "think" or prompt LIMB-action, not muscular action!

9. You cannot sound any note without *actuating* (i.e. exerting) the finger concerned.

NOTE. — Unless you use your fist sideways, as you should do in the first steps of learning. Here refer to my "Nine Steps," "First Solo Book," "Child's First Steps," "First Music Making," "Playthings," etc., Oxford University Press.

10. This *exertion* of the finger may be accompanied by a *movement* of the finger (relatively to the hand), but *not necessarily so*.

11. Realize, in applying Power, that action and re-action *are always equal*. Therefore, in order effectively to apply power (or Force, or Energy) at the business end of a limb, or portion of it (such as the finger) you must supply a sufficiently stable *basis* as required at the *other* end of that limb (or portion of it) else the force you use will be there misspent, and you will fail to attain the intended tone.¹

12. *Hence you cannot* actuate or exert your finger efficiently, unless you help it by the Hand-and-Arm element in some form or other.

Without such efficient *Basis* or *Foundation*, your finger-action will certainly fail in its purpose to move the key accurately.

13. When you apply force with the tip of your finger against the key to move it, the reaction is felt at the *knuckle*; consequently you must supply a stable *basis* there at that moment — the knuckle must not give way, else you will lose your intended

¹ The necessity of a stable foundation for each action was vaguely felt in the past, hence those fallacious ideas of "Fixation," unhappily copied by some recent authors.

effect. This required steady Basis at the knuckle is obtained by *exerting* (or actuating) your Hand during the moment you use your finger for key-depression.

14. This exertion of the hand does *not* necessarily imply a *movement* of it.

NOTE. — You can exert the hand without moving it. Try it on the top of a table. Press quite forcibly — you can feel it, but cannot see it.

15. Again, when you thus help the finger by a down-exertion of the *hand* at the knuckle, the re-action is then felt at the Wrist-joint — up towards the arm there. Clearly then, you must there also supply a stable Basis *when the tone requires it*, else the wrist will be driven up.

But this *Basis* for the down-exertion of the hand upon the finger is provided by the Arm-element, in one of its *six* forms, considered later.

16. Roughly speaking, therefore, the physiological elements available are three: —

- (1) Finger exertion
- (2) Hand-exertion and
- (3) The Arm-element.

17. You can optionally apply any or all of these three elements at the moment of key-descent, while depressing the key by the *Movement* of only one of these; i.e., there need be only a movement of one of these, the other two elements showing no movement whatever.

18. Be sure not to confuse the *exertion* or *relaxation* of a limb with the *movement* of it.

19. Also, do not confuse the application of Weight with *movement* of the weight.

NOTE. — When you drop your arm at your side, you have an example of *Movement without exertion*. Whereas, when your arm lies passively on a table, you can feel the Weight of it there, but there is no movement. In the same way, you can *exert* your arm, or hand or finger without showing any *Movement*. See Note to ¶ 14.

20. Indeed, most of the muscular changes-in-state which you have to apply in playing are quite hidden from the eye.

21. The particular movement is a relatively unimportant matter, but the particular *Condition* (or state of limb) is all-important. And this last is almost always *invisible*.

Section V

THE PHYSIOLOGICAL DETAILS OF TOUCH

— *How to use your finger, hand, and arm:*

The Finger:

1. Never try to hit the key down. Instead bring the finger gently upon the surface of the Key, and when you reach this surface exert the finger (maybe quite vigorously) during key-descent, to the extent you feel the key needs for each particular Tone.

2. There are two possible modes of finger-use: —

(a) You can use a folding-inwards or gripping exertion, or —

(b) You can use an opening-out or unfolding exertion and you can supply both without any corresponding *movement* whatever. See Section IX, “Bent *v.* Flat Finger-use.”

3. The CONDITION of the Upper-arm and Elbow is compelled to be in sympathy with these two opposite forms of finger action.¹

¹ For quite soft running passages the *inertia* of the perfectly poised arm will serve sufficiently as basis both for “clinging” and “thrusting” finger; but for larger tones played by “clinging” finger the upper arm and elbow must tend to fall backwards, whereas with “bent-finger” the upper arm tends to be exerted forwards. See Section IX, “Flat and Bent Finger.”

The Hand:

1. To enable the finger to do its work effectively, you must *exert* the hand downwards upon it at the knuckle during each momentary act of tone-production, as pointed out in ¶¶11 and 12 of this Section. This, however, does not necessarily imply any *movement* whatever of the hand itself.

2. As you cannot *exert the finger* vigorously against the key without this corresponding exertion of the hand, you also cannot *exert your hand* upon the key without the corresponding exertion of the intervening finger.

3. When you exert both finger and hand you may *move* either the finger only, or the hand only, during key-descent. Therefore, one of these exertions will then be entirely *hidden from view*.

4. Thus, in all normal playing by *finger-movement* (or so-called "finger-touch") you must always back-up your finger exertion by a hand-exertion, delivered for each note *individually*, although this hand-exertion may remain quite invisible.

The Arm:

1. This matter is bound to seem complex at first sight, but is perfectly simple once it is grasped.

Without mastery of it, there cannot be any real understanding of the rationale of Technique.

2. To enable finger and hand to have their proper *basis*, you must (as shown) back-up the hand exertion by some form of Arm-use — some particular condition or state of the arm.

3. There are SIX WAYS you can thus apply the Arm:—

4. *Four* of these are OPTIONAL, being determined by the desired tone. These four are applied *only during the moment of key-descent* — to enable the finger and hand to do their work effectively.

5. Whereas *two* are COMPULSORY, and constantly needed, whatever the nature of the passage.

6. The Four Optional and Momentary Forms of Arm-Use:

- I. THE WEIGHT OF THE WHOLE ARM, relaxed only during key-descent.
- II. THE WEIGHT OF THE FORE-ARM ONLY in place of whole-arm weight.
- III. A DOWN-EXERTION OF THE FOREARM; but in conjunction with the loosened upper-arm and lastly
- IV. THIS SAME DOWN-EXERTION OF THE FOREARM, but here in conjunction with a FORWARD-DRIVEN UPPER-ARM.

NOTE. — This No. IV is a type of technique carefully to be shunned in *forte!*

7. *Singing-tone*, chords, etc., demand the use of No. I — here you must *momentarily* release the whole arm (either fully or less fully) as felt necessary for the particular tone.¹

This triple combination of arm-weight, finger and hand exertion needed for singing tone, lends itself to the distinction between “Weight-initiated” and “Muscularly-initiated” touch, and is one you must also learn to recognize. If you *think* of Weight-release the musical result will be rounder and fuller than when you *think* of the implied Finger-and-hand exertions.

NOTE. — This is more a psychological than a physical distinction, but none the less real, musically, for all that. See “Act of Touch,” Chapter XX, etc.

8. *Lighter effects* need only No. II — here release only Fore-arm Weight.

9. *For greater tone* than can be provided by the full Weight-basis (No. I alone), No. III is needed — here you must *exert*

¹ The key-resistance encountered during the moment of key-descent tells you *how* much, if you attend alertly. This gives you *pp* up to *mf*, and possibly *f* — but do not forget also the required *momentary* exertions of finger and hand! — so as to render the weight of the arm effective behind the exerted finger and hand during the moment of key-descent, or when continuously so needed (slightly) for “Passing-on” touch or legato “Resting,” etc. (Sections VIII and XII).

This weight-release, however, does NOT necessarily imply any *movement* whatever of the arm itself.

the Forearm downwards *in addition* to the full release of the Upper-arm, with its *free elbow*.

10. *Never use No. IV instead for loud tones* — i.e., never, for *fortes*, exert the Upperarm *forwards* while you exert the Forearm downwards.

NOTE. — This Forward-drive of the Upper-arm, given *very gently indeed*, may however occasionally be appropriate for light “dry” effects. But in *fortes* this forward-driven Upper-arm and down-forced Forearm (with its rigid Elbow) is responsible for all those harsh, noisy, dull, thuddy effects one so often hears, even from otherwise quite good artists. It is not only destructive of all natural beauty and control of utterance, but is also most injurious to the instrument itself. Avoid it!

11. **The Two Compulsory Forms of Arm-use are:**

- $$\left\{ \begin{array}{l} (A) \text{ THE POISED ARM, and —} \\ (B) \text{ THE ROTATIVE FOREARM.} \end{array} \right.$$

12. (A) THE POISED ARM is used for *all* passages, but is applied either *Continuously*, or *Intermittently*.

(B) THE FOREARM ROTATIVE CONDITIONS must be applied correctly to *every note*, whatever the Touch-form used.

13. **The Poised Condition of the Whole Arm:**

This is a freely-balanced, self-supported, floating or buoyant state (or condition) of the whole arm. It is used in the *two ways*: —

- $$\left\{ \begin{array}{l} (a) \text{ Intermittently, and —} \\ (b) \text{ Continuously. Thus: —} \end{array} \right.$$

14. (a) INTERMITTENTLY, the poised arm is applied *in-between the sounding of all the notes* in passages which require the arm *during* key-descent in one of the *four* ways mentioned in ¶6.

In this case the arm *reverts* to its poised condition *instantly* on the completion of each separate act of tone-production, both in loud and soft passages, and both in Legato and Staccato.

15. (b) CONTINUOUSLY, the poised arm is needed, without break, for the duration of each phrase in most *Agility* passages.

It forms the Basis of *Arm-vibration* touch, and also “The

Act of Resting," both in Staccato and in "*Artificial Legato.*" See Sections VIII, XI, and XII.

16. This *continuously* poised arm may, moreover, be either used in its FULLY-POISED or in a SLIGHTLY LESS poised condition. Thus:—

(a) When *fully-poised* (or self-supported) *none* of its weight reaches the keybeds — and you "rest" at the surface-level of the keyboard.

(b) When *slightly less* than fully-poised, enough weight may be allowed to rest on the keybeds (and there *passed on* from keybed to keybed) to form "Natural" Legato-resting, and also for "Passing-on" or "Weight-transfer Touch." (See Sections VIII and XI, for Legato and Staccato, and Section XII for Weight-transfer Touch.)

NOTE. — In playing the louder swirls of "Passing-on" touch, the arm may be released a *little* more to provoke *crescendi*; and even with "Arm-vibration" touch it may be a little less than fully-poised in rapid *forte* passages, without such weight reaching the keybeds after all. Anything beyond this (still light) degree of continuously passed-on Weight will ruin your possibility of accurately choosing your tones, will seriously impede all Agility and may even injure your arms, hands and fingers — unless you have exceptionally strong arms and fingers, when possibly you may go unscathed in spite of much wrong-doing! See Section XII.

17. All these matters will become clearer when more fully dealt with under their respective headings. See Section XI, "How to play Staccato and Legato," page 38, and Section XII, on "Arm-vibration and Weight-transfer Touches," page 41.

18. The Rotative Forearm:

Reversals or Repetitions in the condition (or state) of the Forearm, rotatively, are needed for *every note* played, either as alternate changes of state, or as repetitions.

They are mostly quite *invisible*, but so important that the next Section (VI) is entirely devoted to their consideration.

19. These different forms of Arm-help can be applied during the act of touch either *without* any accompanying visible *movements* of the arm itself, *or* while exhibiting such visible movements. In the last case, these may be either vertical movements

of the whole arm or forearm only, or they may be rotational movements of the forearm.

NOTE. — Distinction in MOVEMENT is however quite an unimportant matter. It merely signifies that *one* particular component of touch here outbalances the remaining components, hence this one becomes visible, while the rest remain *invisible*.

Thus, we call it "Arm-touch" when the whole arm or forearm is moved vertically; whereas we call it "Rotation-touch" when the Forearm is rocked rotationally. See Section VII, "The Movements of Touch," and Section XIV, "The Names of Touch."

20. To sum up these facts as to the arm: —

(a) To enable you to help the necessary (but momentary) Finger-exertion required for each note, a momentary exertion of the *HAND* is also required, together with the right *Arm-conditions*.

(b) You must learn to apply the arm in *six distinct ways*:

(c) *Four* of these are *optional*, and only applied during key-descent; whereas *two* are *compulsory* in all passages.

(d) The *four optional and momentary applications of Arm-energy* are: —

- | | |
|---|---|
| { | <ol style="list-style-type: none"> 1. The <i>whole arm</i> more or less than fully released during the act of tone-production — for singing and chord effects. 2. The <i>forearm weight</i> alone released — for light effects. 3. <i>Forearm down-exertion</i> added to <i>upper-Arm Weight-release</i> for loudest tone effects. 4. <i>Upper-arm forward-drive</i> along with the <i>Forearm down-exertion</i> — to be strictly avoided — unless for special effects. |
|---|---|

(e) Whereas the *two compulsory forms of arm-condition* are: —

The *Poised Arm*, and
The *Rotative Arm*,

— these two forms apply to all Technique.

(f) The *POISED Arm* is used *CONTINUOUSLY* for all true *Agility* passages needing tonal *selectivity* for each note.

It can be used either *fully*-poised as in Staccato Resting and Agility-work, or *slightly less* fully-poised as for Legato Resting, and for Weight-transfer Touch.

(g) The Poised Arm is nevertheless applied INTERMITTENTLY when one of the above *optional* ways of Arm-use is applied *during key-descent*.

That is, the Arm must always resume its *poised* condition *in-between* the sounding of the notes in all passages, even when it is "lapsed" during the Act of Tone-production.

(h) The *Forearm rotational exertions and relaxations* (reversed or repeated) must in the meantime be correctly applied to *every note* you play, without exception — unless you play with your fist sideways, as required in my "First Steps"!

SOME ADDITIONAL ADVICE ON ARM-USE

21. If a *singing* or *chord* passage sounds too *thin* in tone, probably the error is that you are *not* using arm-weight properly during key-descent; either you are but imperfectly relaxing it, or not relaxing the whole mass from the shoulder, or are doing so *too late* during key-descent.

22. Remember, if you relax (or lapse) your whole arm *properly* (with or *without* movement) your Elbow will feel free and elastic, and will tend to fall away from the keys, and the whole arm will *tend* to collapse or fold up at the Elbow — like a book allowed to slip down.

23. Beauty of tone and Control of tone directly depend on the elision of any stiffness or rigidity at the Elbow-joint.

24. For *louder* passages you must add (as noted) an *exertion* of the Forearm downwards to this relaxation of the up-holding muscles of the *Whole* arm — both those of the forearm and upper-arm.

NOTE. — When you help yourself upstairs by the bannisters you are employing a similar leverage action as this one for *forte* tone.

25. *Whenever* your *forte* tone sounds harsh or dead, you are using the objectionable poke-forward of the Upper-arm along with the required down-exertion of the Forearm.

However long-standing your bad habits are in this respect, you can instantly cure this Music and Piano killing muscular gesture by realizing *the cause* of the fault, as here shown.

26. For light effects the *weight* of the *Forearm* by itself suffices; but remember here to keep the *Upper-arm* in its nicely poised or balanced condition.

27. Moreover, for the gentlest lightest effects you *may* use the Upper-arm forwards — provided you carefully *avoid* using any down-exertion of the Forearm at that moment.

28. For so-called “Finger-passages” at quick Tempo, it is best to use “Arm-vibration touch” if you desire to retain selectivity of tone. This demands that you must keep the Arm throughout in its fully *poised* condition. The whole arm must here be so accurately poised or balanced that it can be set into *sympathetic* vibration by reaction from the momentary finger AND HAND impulses delivered against the keys. This use of the inertia of the poised arm gives “body” to your finger-passages. (See Section XII, on “*Arm-vibration* and *Weight-transfer* Touches”; also Note to ¶16.)

29. “Arm-off” is therefore the slogan and secret of Agility. Realize also that “arm-off” applies when you are *holding* notes! (See Section VIII.)

30. Thus you must first learn to *use* Arm-weight, etc., when necessary, and then you must carefully learn to *avoid* it — when it is not required.

31. If your running passages are clumsy, colourless or sticky, you are either allowing your arm continuously to rest *too heavily* on the keyboard, or you are not *timing* your action accurately enough for each individual note, or — and most probably of all — you are applying rotatory stresses of the Forearm where they should be omitted.

32. Realize, then, that you must “actuate” (or exert) your

finger and hand, separately for every note, whether showing an actual movement or not; and also at the same moment provide the requisite Forearm rotatory conditions.

33. The determining factor in Tone and Agility always lies in the correct application of these *four optional* and the *two ever-present* distinct arm-elements, which help the finger and hand, *visibly* or *invisibly* as the case may be.

34. The most important of all to insist upon are the two "ever-present" arm-elements described under *A* and *B* of ¶11, page 15 — the Forearm Rotational element and the Poised arm-element, since without mastery of these all true Technique remains unattainable.

The Forearm rotational stresses and relaxations, although mostly *invisible*, are indeed so vital to one's well-being pianistically that they now receive the following Section VI to themselves.

Section VI

FOREARM ROTATION

— *Its visible movements and its invisible stresses.*
When to apply them and when not.

1. No playing is possible without the intervention of Forearm-rotation, and never has been. Mostly, however, the Forearm Rotative Element remains QUITE INVISIBLE.

2. It is used both in its visible *and invisible* forms in almost everything you do, as, for instance, when trying to turn a stiff door handle — you can feel the stress before the handle gives way.

3. In its *visible* form it implies a partial rotation of the forearm at the wrist, and when thus shown as *movement* is called "Ro-

tation-touch." The effect is caused by your twisting the *two* forearm-bones (socketed at the elbow) one upon the other, and then allowing these to untwist again.

4. These rotatory exertions you can disclose by actual movements, or you can apply them WITHOUT ANY MOVEMENT WHATSOEVER.

5. At the Piano they have been totally overlooked in the past when not exhibited as *Movement*.¹

6. To practise scales and exercises with the object of "equalizing the fingers," or to "strengthen the fourth and fifth fingers" is therefore the height of folly, and thoroughly harmful, unless you see to it that these rotatory impulses of the forearm are correctly delivered.

7. Learn to apply this twisting and untwisting action properly, and your fingers will at once all be equally "strong" and responsive.

8. To render this clear, try the following experiments:—

Drop your arm at your side, really fully relaxed. You will find that your hand now hangs flat with the side of your body — because you have really relaxed the rotatory effort *towards the thumb*.

Or: — Drop your arm on your knees, equally relaxed, and you find that your hand tends to roll over almost onto its back. Now with this completely relaxed and inactive state of the forearm, rotationally, bring your hand onto the surface of the keyboard — with the hand sideways therefore, and with the thumb turned up.

9. Clearly, now, if you wish to turn your hand into its usual level playing position, you are compelled to *exert* and turn the forearm rotationally towards the thumb-side of the hand.

¹ Even today there are still writers who fail to grasp this simple fact, that rotational stress does NOT necessarily signify *Movement*; and their attempted Touch-explanations lamentably and completely founder in consequence of this misapprehension.

In the old days this was excusable, but not Now!

It is indeed a very slight exertion towards the thumb, but is an exertion for all that.

10. Now note particularly, that *if you wish to retain your hand* in that level position, you must also *continue* this slight but *invisible* exertion towards the thumb, otherwise the hand will again roll back onto its side, with thumb up.

NOTE. — Evidently, we possess both “weak” and “strong” forearm-rotative muscles, both for twisting the forearm *inwards* and *outwards* — “pronation” and “supination.” Now we have to use *both* to turn our hand over into its level playing position; but the “small” muscles suffice to *retain* the hand in this position.

The *dual* nature of our muscular equipment is here again likely to mislead us. We may imagine, because we have quite correctly ceased the activity of the “strong” muscles, that there is *no* exertion continued towards the thumb, in spite of the fact that the “weak” muscles are retaining the hand in its level position.

Yet, unless we *cease* even this slight residue of rotational exertion towards the thumb (thus provided by these “weak” muscles) we shall inevitably gravely impair the action of the *next* finger in sounding its note, and it will seem “weak,” because deprived of its natural rotational help — to the little finger side. See Sect. VIII, “On Holding Notes,” p. 31.

11. Next realize, that when you wish to sound that thumb note strongly, you must increase that slight forearm rotatory exertion towards the thumb — precisely to the extent you wish to exert the thumb during the moment of key-depression.

That is where all the mischief arises and has arisen!

12. No one ever yet has been able *to retain the hand in its playing position*, nor to sound the thumb strongly, *without* this usually INVISIBLE rotatory help. But as this help is mostly applied *without any visible movement* of the forearm, it is likely to escape attention as in the past, hence this Rotative Exertion is then unwittingly *continued beyond the moment of tone-production*, instead of being ceased instantly. And if this invisible exertion towards the thumb is thus unwittingly continued, and not accurately ceased, this will inevitably prevent your attaining any ease or fluency technically.

13. Therefore, the first thing to learn, is, completely to CEASE *this rotative exertion* towards the thumb the very moment it has fulfilled its purpose.

14. When you cease it thus completely and promptly, your hand will tend to roll over onto its side — outwards — *unless caught up* by one of the other fingers.

NOTE. — As already noted under ¶10, evidently we possess “weak” as well as “strong” rotative muscles, just as in the case of the fingers. Now be sure that you cease *all residue* of rotatory exertion (*even of these “weak” rotation-muscles*) in the *wrong* direction when you play the next finger. Else you will inevitably impair the rotative-help due to that finger.

15. When playing softly, this pure *relaxation* of the forearm rotationally will here serve amply as basis for any of the other fingers used after the thumb. But to sound these other notes at all forcibly, you must also *add* an actual rotative *exertion* of the forearm in their direction — towards the little finger side.

16. Apply this process to the sounding of either fourth or fifth fingers after the thumb, and you will at once find those fingers perfectly “strong” — and not needing thousands of futile and music-killing exercises!

17. The simple law is, if you wish to give rotatory help in one direction be sure to *omit the opposite exertion*.

18. As with any other muscular exertion required at the Piano (or anywhere else) freedom and ease are the most essential factors — without any tug-of-war between opposite or antagonistic sets of muscles.

19. Moreover, in rapid finger passages, be careful to give the rapid, but here invisible, rotative *reversals* or *reiterations* always in the right DIRECTION.

NOTE. — In referring to the necessary rotatory help of the forearm for each individual note of a rapid “finger” passage, remember I am speaking of INVISIBLE actions, alternate reversals or reiterations muscularly, and undisplayed by any rotatory or rocking *movements*. This warning is repeatedly necessary, as I find that some have foolishly imagined that in speaking of Rotation in this connection I mean *movement* — actual visibility. I do *not*, whatever mistake others have made in this respect! Certainly, in slower passages, actual movements may optionally be displayed. In the learning stage actual movements are in fact an advantage, but the *Tempo* must then be slow enough to admit of such movements.

20. The *direction* of Rotation is always FROM the finger last used, and TOWARDS the finger next used. Thus, for instance: —

When you use the middle-finger *after the thumb*, your forearm must rotationally help in the direction of the little finger; whereas, when you use this same middle-finger *after the little finger*, then your forearm must rotationally help in the opposite direction — towards the thumb.

21. When a passage moves with notes melodically alternately rising and falling, then you must supply ALTERNATE conditions rotatively; but when the fingers succeed each other *in their natural order* then you must REPEAT the same rotatory impulse for each note.

NOTE. — Either accompanied by a visible rolling movement, or *none whatever*.

22. Thus, in a straight-on five-finger succession (or five-finger exercise) if you begin with the thumb, you must give rotatory help towards the thumb, but must follow this by four repeated rotatory impulses towards the *little finger*. Whereas, in returning, you must give four repeated rotatory impulses towards the *thumb*.

Thus: —

Ex. No. 1.

R.H. towards little finger towards thumb

towards thumb

23. This law of *Direction* applies equally when you turn a finger *over the thumb*. Thus in a Scale or Arpeggio, when you turn your finger over, the direction of rotation is not (as you might suppose) in the direction of the passage, but instead, the rotatory help must be given in the direction of the *little finger*.

NOTE. — Try a shake or tremolo *with the thumb under the fingers*. Try it first with reiterated rotations towards the thumb (visible or *invisible*), and then with alternate rotations, and the matter will be clear to you forever afterwards.

24. Next realize, when you play a passage with the two hands moving melodically in the *same* direction, that the rotatory changes required are in the *opposite direction* in the two hands.

Unless you recognize this fact, you are likely to make such passage in similar motion a difficulty, where none really exists.

It even applies when the hands are not playing together but are playing the passage alternately.

NOTE. — Hence, for the beginner, it is always best when he first plays his hands together, to have the notes moving by contrary motion melodically, so far as possible. This principle has been carried out in "Pianist's First Music Making" and in my "First Solo Book," and "Playthings," Book I — Oxford University Press.

25. Octave playing usually fails simply owing to rotational stiffening. In all octave and double-notes passages the required slight (but invisible) rotatory exertions towards the thumb must be *repeated* freely each time, individually, for each octave, and likewise for any other passage in double-notes, sixths, etc.¹

26. The quickest and most certain way to acquire this required harmony between finger and forearm, rotatively, is to work through the logically successive steps indicated in my little pamphlet "*The Nine Steps towards Finger Individualization*" — a Summary of "The Child's First Steps" — to which refer.²

27. Whenever any finger-passage seems sticky or otherwise technically deficient, again and again recur to THE FIRST FOUR of these Steps; also rotationally *re-analyze the passage* in question. This can be done in a few minutes, and the passage is at once bettered.

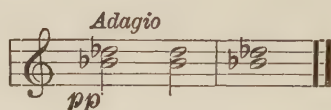
¹ No, they are *not* movements rotationally — the help is *invisible!* The old idea of "forming the hand" for the octave passage was sheer folly, with its stiff arm, wrist, and forearm rotationally set; in fact it was criminally bad teaching!

² "The Nine Steps towards Finger Individualization" (The Oxford Press). "The Child's First Steps" (Joseph Williams). These steps are the **ONLY POSSIBLE** ones, and they are given in the only possible logical order. One step only is taken at a time, and they naturally lead up to the straight-on five-finger exercise. See also "On Method in Teaching" — Oxford University Press.

28. Remember, these first *four* steps are:—

I. With the hand closed as a *fist*, and vertical, — with the thumb up — sound two adjacent black keys, *pp*.

Ex. No. 2.

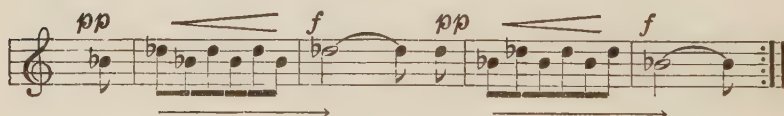


II. Do the same, but with the fist now horizontal — in playing position.

III. Now rhythmically rock on the same two notes, still with fist horizontal and still *pp* — and the slightest weight only.

IV. Now *add* to this last (the soft passing on of light weight from note to note) and still with your fist, a stronger impulse (rotationally) during each key-descent, from *pp* to *f*, thus:—

Ex. No. 3.



Notice, that no finger at all has so far been used in this, but you will nevertheless have SET RIGHT the *basis* for your finger-action!

Then follow this by the five remaining steps, adding finger-action to the preceding, and thus leading up to the five-finger exercise, as shown in "The Nine Steps" — which see.

29. Or, for an advanced player or artist, instead substitute the two following test-exercises only, or the last one only, as this covers the ground. After that, transmit the right sensations thus learnt to the passage that has given trouble, and you will find the difficulty has vanished.

Ex. No. 4.

(a)

Hands separately at first, then together, and lastly by similar motion.

(b)

The in-between notes quite light, but the accents well pronounced. The hands separate at first, then together, and lastly by similar motion. Each bar might be repeated several times before proceeding to the next.

30. Finally, realize that you can only attain successful "finger" passage-work (or any other form of technique) by your insisting on attuning perfect harmony between finger and forearm in this respect. The forearm rotational-help must be correctly forthcoming for each note, and the finger itself (and hand) must be sufficiently exerted to *make use* of this help; and the *movement* may either be that of the Finger, or Hand, or Forearm-Rotation itself!

31. In short, the finger and the forearm elements must be

accurately *balanced* and timed for every note you play. Without such balancing and timing it is impossible to succeed.

32. Finally, always *play freely*.

The word "RELAXATION" is however sometimes turned into a Fetish. It has even been stupidly (and lately *mali-iciously*) perverted and twisted into signifying a general flabbiness, feebleness and Ineptitude! It means nothing of the kind! Without Relaxation you cannot play at all, and noone ever has or ever will.

33. Realize and master the *three* distinct rôles of Relaxation in Technique. Thus:

(1) To obtain the use of the free weight of your Arm, you must learn to relax its upholding muscles.

(2) To enable you to play freely you must learn to relax the antagonistic (or contrary) muscles.

(3) To enable you to ensure tonal accuracy you must learn to relax all stresses used during and for tone-production the moment their mission is complete.

NOTE. — This last does *not* preclude a light "after-pressure" upon the key-beds for Legato, which helps to apprise you *how long* you are holding those notes down; and this does *not* constitute what I meant when I invented the term "key-bedding." Key-bedding signifies a *mis-timing* of the tone-intended force, *too late* in key-descent — a *burying* of the tone therefore!

34. Remember, THAT THE SOLE PURPOSE OF RELAXATION is to *enable* you to **exert** your Finger and hand adequately and easily in playing. Never forget that!

35. In past days only geniuses stumbled upon the correct processes of Technique or Touch. Nowadays you and everyone else who can or will use his brains sufficiently to understand the facts herein made plain, and will work on these lines, can and assuredly *will* succeed — technically!

36. But remember, "successful technique" only signifies the power to express that which you can *see* or *feel* musically.

Therefore, *do try* all the while to *perceive* musical sense, for only in this way can you also improve your Musical Sight — and your Technique!

Section VII

THE MOVEMENTS OF TOUCH

— *Before the key is reached, and with it.*

The Movements of Touch:

1. Most of the harmful attempts to teach Touch have arisen from the delusion that the CAUSE of Touch lies in the exhibited accompanying *visible movements*; whereas, obviously, the true causes of Touch can only be found in the actuating but *quite invisible* muscular changes in *state* of the Arm, Hand, and Finger.

2. While *all* Touch demands reversals or repetitions in the visible or mostly *invisible* state of the *Forearm* *rotatively* for every note, and *all touch* also needs the “*poised*” (or self-supported) state of the Arm in its several ways — either *continuous* during each phrase, or instantly *resumed* during each interval *between* the sounding of the notes — you may accompany these actuating *conditions* either by Finger, Hand, or Arm *movements*. Thus:

3. **I. Finger-Movement**, caused either: —

(a) Solely by exertion of the “small” muscles of the finger (situated inside the hand) but really too weak for certainty in tone-production, but most suitable for holding notes down after they have been sounded.

NOTE. — A touch-form only suitable for certain quite light effects, grace-notes, etc., and no doubt available in the old Clavichord days. It has indeed been said of Bach that he sometimes used only the Nail-phalanges!

(b) By the exertion of the “strong” muscles of the finger (situated on the Forearm); but this implies also an exertion *via* the Hand, as these tendons run through the wrist-joint: the Arm in the meantime remains *continuously* either in its fully or slightly less-fully “*poised*” condition. Or optionally: The finger may be helped in its work of tone-

production (*via* an *invisible* exertion of the hand) by a *momentary* but again invisible application of *down-arm* energy in one of the *four* ways noted below under Arm-movement, and already fully discussed (as *actuating* causes) in Section V — “The Arm,” which see.

II. **Hand-Movement** caused by an exertion of the Hand itself, along with an *invisible* exertion of the Finger, and either with:

(a) The *Poised* condition of the Arm, or

(b) Helped again by *momentary* but *invisible* Down-arm impulses, provided in either of the before-mentioned *four* ways.

III. **Arm-Movement** (either Whole-arm or Forearm vertically, or Forearm rotationally) along with *invisible* exertions of both Finger and Hand; an arm-movement caused either: —

(a) by a momentary *relaxation of the whole arm* from its poised condition, or —

(b) by *Forearm weight* only; or —

(c) by a momentary *down-exertion of the Forearm* in conjunction with the relaxation of the Upper-arm — for full *fortes*; or —

(d) by a momentary *forward-drive of the Upper-arm* along with the down-exertion of the Forearm.

NOTE. — But, as already said, a form of touch imperatively *to be avoided* except for special effects, if you wish your *fortes* to sound pleasant to the ear!

4. The determining factor as to which of these *movements* shall arise, lies in the respective *balance of power* between the three main factors — Finger, Hand, and Arm —

For instance, when you use the complete muscular combination of Finger-Hand-and-Arm, you will have *Finger-movement* when the finger-exertion is slightly in excess of the other two components of Touch; whereas you will have *Hand-movement* when the hand-exertion is slightly in excess; whereas *Arm-movement* itself will supervene, when finger and hand exertions are slightly in the minority.

NOTE. — *Rotatory movements* of the Forearm are available whatever the Touch-form.

5. Touch-movements, moreover, also tend to *merge* one into the other, just as do the various causal Touch-*actuations* themselves.

6. *No* laws can be laid down as to which movement *should* be used for any particular passage, as this depends largely on Taste, and thus the artistic impulse or caprice of the moment often determines choice of Movement as well as Touch-*kind*.

7. The only certain point is, that for quicker passages the *shorter levers* are more convenient to move. Thus for slow passages, you can conveniently move the whole arm or forearm only for each note, whereas for quicker passages, Hand or Rotation movements are more comfortable; while for the quickest successions of notes there is no time except for Finger-movement. Small oscillatory (rotational) movements of the Forearm, however, are quite serviceable even in quick tremolos and shakes, since the forearm, rotationally, is very agile!

8. The PRELIMINARY gentle movements of the finger, hand, arm *towards* the key (preliminary to the true act of touch, which is *with* the key) may and should be quite ample, if the speed of the passage admits of it.

9. Plenty of movement helps freedom and is healthy for the muscles, since it promotes circulation.

Such preliminary movements, however, should always occur naturally, and neither finger nor hand should ever be strained back. Moreover, the force needed to depress the key must not be supplied until and after the key is reached.¹

10. In the case of actual movements of the arm, it is mechanically helpful, however, to get the arm *under way* before reaching the key, since this enables you to overcome the sluggishness (or Inertia) of the mass of the arm before you actually *begin*

¹ Hence also the mis-teaching that "the louder the note the higher must be the fall" of your arm — another fallacy which a recent author and his subsequent imitator have had the impudence to ascribe to myself (of all people!) in books replete with similar total misrepresentations of my teachings. How could one judge Key-resistance if the arm were really thus "dropped down"!

the act of tone-production — from the surface-level of the keyboard.

11. Moreover, be careful never actually to *hit* the key down; for you cannot feel *how* much the key needs for each sound if you do, and your playing must then suffer musically.

NOTE. — In the old days finger and hand “lifting” were made into a craze under the foolish notion that the higher one “lifted” one’s fingers and hand the harder could one “Hit” or “Strike” the key down! But that is now a long exploded notion, since we realize, as here shown, that if one hits a note down one cannot possibly *feel how much* the key needs, and cannot choose one’s tone-colour with any certainty.

12. Do not quit the surface of the key, when you have to repeat a note quickly.

13. For comparatively soft notes, on a Grand, you do not even need to let the key rise fully before sounding it afresh, since the “Repetition-lever” is designed with this very purpose.

On an Upright Piano, however, you must let the key rise fully.

14. For Octave passages, which necessarily imply muscular *repetitions*, also as a rule do not quit the keyboard, but slide your way along from note to note — unless you play by arm-movement. See Section X, ¶¶5-7. This sliding is done by the thumb when moving outwards, and by the fifth or fourth fingers when moving towards you.

15. Finally, remember always, that such *visible* manifestations of Movement do not in the least indicate what is happening “behind the scenes” — what is happening *invisibly* in the way of Limb-exertion or relaxation during the processes of touch. These causal actions you must acquire through experiment and sensation, and your eye cannot help you.¹

¹ See Additional Note in “Digest” — “The pure Finger-work fallacy.”

Section VIII

ON HOLDING NOTES

— *The right way and the wrong way.*

1. You must almost invariably use the “strong” muscles of the finger to *sound* the notes at the Pianoforte. These “strong” muscles are situated on the Forearm.

2. Therefore, during key-descent you may be able to notice a slight *tension* across the under-side of the wrist-joint during the moment of key-depression.

3. Promptly *cease working* with these “strong” muscles the very moment you hear the sound begin.

4. In the meantime you have also used the “small” muscles of the fingers during the moment of key-depression. These “small” muscles lie inside the hand itself.

5. Now, you must always *hold* the key down in tenuto and legato (or at surface-level during Staccato) *solely* by continuing the gentle exertion of these *small* muscles of the finger. To know their names or the precise locality of these muscles will not help you in the least, but when you do the right thing, remember it *feels as if* the exertion were solely on the underside of the finger itself — the gentlest tension on their underside, and *seemingly* located between finger-tip and knuckle.

6. That is, you may use *all* the muscles connected with the finger *during* the sounding-action, but you must hold the notes afterwards *solely* by these “small” muscles.¹

7. Constantly *test* yourself for such *light holding of notes*, by insisting on freedom (or mobility) at the knuckles while holding notes; or even while depressing the Keys.²

¹ Or, translated into the impressive *quasi-scientific* jargon affected by some recent writers: “Use both the *lumbricalis* and the *flexor sublimis digitorum* during key-descent.” This, however, does not seem materially to help things forward?

² See “Relaxation Studies” for these three and other test-exercises.

8. To teach you this correct way of holding notes down, and the distinction between the action of sounding notes and the action of holding them, the simplest test is as follows: —

(a) Clench your fingers firmly into the palm of your hand, and notice that while you continue this stress it provokes a certain rigidity of the wrist at its under-side. (b) Suddenly *let go* this strain, while still keeping the finger-tips touching the palm of your hand — but now quite lightly. You will find that you can now freely move your hand in every direction — *so long as* you thus use only the “small” muscles of the fingers — and this without the slightest sensation of strain across the wrist. This is the only right way to hold notes.

9. Also practise the traditional “Holding-notes exercise” at the keyboard. But always be careful to do so accurately in accordance with this knowledge — that the “holding” must be done perfectly lightly. You can easily ensure this, provided you insist on employing only these “small” muscles of the fingers — with free and *mobile* knuckles.

NOTE. — This “holding-notes exercise” is one of the oldest and best known of all exercises. Practised correctly it is extremely helpful as a *test* for correct technique, whereas, practised wrongly (as mostly done!) nothing can be more harmful. It forms Section XVI of my “Relaxation Studies” (Bosworth). Many others of the *Test-exercises* there given, also help towards the same purpose, such as Sets I, III, and XIII.

10. By testing yourself in the way here indicated, you can learn to realize the nature of the correct muscular habits required, and can learn to avoid one of the worst of all the wrong ones — the sustaining of notes stiffly and clumsily!

11. In short, hold down your notes (in legato and tenuto) quite comfortably firmly, by pressure solely of the “small” muscles of the finger — with loose knuckles. This slight “after-pressure” is not “key-bedding”!

Don’t do so with the “strong” finger muscles, which you have to use in sounding the notes. That is “key-bedding,” because

you are then mis-timing the forces intended to produce the tones, and are technically and musically spoiling all your playing.¹

Section IX

BENT AND FLAT FINGER-ACTION

— *Thrusting v. Clinging, or Unfolding v. In-folding actions.*

Thrusting v. Clinging.

1. As already pointed out in Section V, ¶2, you can use the finger itself in two quite distinct and opposite ways while moving towards the key and *with it*. Thus:—

A): THE “THRUSTING” OR “BENT” FINGER ACTION

2. In this mode of action, the raised finger is considerably curved (bent or folded-in) and you then open it out somewhat during its descent to the key, and *with* the key during key-descent, the nail-phalange (the end “joint” of the finger) remaining almost vertical throughout — both with finger up and with finger down.

3. This thrusting, shoving, “bent” or *unfolding* action of the finger needs for its *invisible* basis a more or less forwardly supported (or even forwardly exerted) Upper-arm and Elbow. See 4th form of Arm-use, *Section V*.

4. This thrusting or shoving action of the finger (a downward and *outward* action) is, however, really quite a complex process — while the middle joint descends, the nail-phalange has to remain vertical.

Carefully compare the “up” and “down” positions of the “bent” finger in the photos annexed.

¹ See Note to ¶14, of Section XI, “Staccato and Legato.”

NOTE. — With the “thrusting” finger the tone can neither be sympathetic, full, nor carrying in melodic passages. Nicety of tone-control is also greatly stultified. For “dry” effects it may be appropriate, but the unavoidable elision of *upper-arm* weight with this form of finger-action precludes all true volume or resonance *in fortes* — as a musical ear would describe the result.

B): THE “CLINGING” OR “FLAT” FINGER ACTION

5. In complete contrast to this “thrusting” form of finger-action, the finger here starts more or less *opened-out*; and will then be more or less folded *inwards* while moving towards the key and with it. In this case, *if* you raise the finger considerably before playing, the nail-phalange (or end “joint”) may actually become visible to you for the moment.

6. This “*clinging*” or “flat” action of the finger needs as its *invisible* Basis a more or less relaxed (and therefore backward-tending) Upper-arm, and with it a likewise backward-tending Elbow. See 1st and 3rd forms of Arm-use, *Section V*.

NOTE. — Applied to the key, the whole limb here remains far more *elastic* than in the opposite forward or thrusting touch previously described. Thus it renders proper key-acceleration more easy for you, and thus also an easier attainment of full, sympathetic, carrying tone, and of nicety of tonal gradation and control.

7. This *folding-in* action of the finger is by far the most natural form of finger-use at the Piano. It is the same action you naturally use all day when gripping hold of objects. It thus enables you also to “take hold of” (and “cling”) to the key.

8. Actually, with the “flat” or clinging (or in-folding) action, the finger *MAY* fold in so much that *when the key is down* it is as much bent-in as with “bent” finger-touch.

But notice, that although *the position*, with finger down, of both modes of finger-action may be identical, that with “clinging” finger it is most bent *when down*, whereas with “thrusting” finger it is most bent *when up*. (See annexed photos.)

NOTE. — With the key down, the eye cannot distinguish which has been used — although your ear apprises you of the difference in sound.

9. Alternatively, with this “clinging” action you may also leave the finger almost straight (or “flat”) during the whole of

its action, and it may remain thus flat with the key down. Thus has arisen, in the past, its name "flat finger."

10. The annexed photographs show you these *visible* differences, (*a*) is the finger well raised before its *thrusting* (unfolding) action, (*aa*) is the same when down; whereas (*b*) is the finger well raised before its *clinging* (or in-folding) action, and (*bb*) the same down with the key — and therefore folded-in during descent; (*c*) on the other hand, shows you the "clinging" finger left "flat" (or more or less straight) when down with the key — with several optional positions of the wrist.

11. Realize also that with the *Upper-arm relaxed* during the moment of key-descent you are compelled to use the *in-folding* ("flat") action of the finger, whereas with the upper-arm (or Elbow) in the least pushing forward you are compelled to use the *unfolding* (bent or thrusting) action of the finger.

But with the upper-arm nicely *poised*, you have the option of using *either* of the two finger-actions, in softer passages.

NOTE. — Moreover, with the "poised" arm, you may, for quite light passages, even play on tip-toe as it were — on the very tips of the fingers — provided you have flat, paddy finger tips, and your nails are not too long!

Section X

HOW TO FIND THE RIGHT NOTES

1. To reach the right places on the keyboard (the right notes) is obviously an important matter. To attain Certainty in this respect, you must always physically *feel* your way along *from* the last note played.

2. You must spiritually *want* to hear the needed melodic succession of *intervals*, and you must also physically *feel* the corresponding set of physical *intervals* on the keyboard.

3. This "feeling-your-way" is mostly done by the true touch-sense — sense of contact or tactile faculty; it is done, for the most part, by your not quitting the last note until you have found the next one.¹

4. The law applies equally in skips — you must still feel your way along the key-surface from note to note.

5. It consequently also applies in octave passages. You must *feel* your way from one octave to the next. Thus becomes possible the trick of so-called "lightning octave passages."

6. Both in octave passages and larger skips you must feel your way along with your thumb, *when the passage travels outwards* — away from you; whereas, you must feel your way along with your fifth or fourth fingers, etc., when the passage moves *inwards* — towards you. See Section VII, ¶14.

7. In the meantime do not forget, that each octave you play demands the *repetition* each time of the necessary forearm rotatory exertion towards the thumb, besides the exertion each time of the two fingers concerned, and also that of the hand.

8. This law of *physical continuity* on the keyboard-surface is equally imperative when you play passages distributed between the two hands. Here *do not quit the keyboard* with one hand until you have found the place of the next-following note with a finger of the other hand. In the meantime also *think* such passage in Rhythmical Continuity.

The "secret" of such passages lies in your insisting upon Rhythmical *Continuity* as well as Physical *Continuity*. Such passages thus become quite easy of attainment. Whereas, if you do *not* give this double form of attention (by touch-sense *and* rhythmic sense) then they are impossible.

¹ Supplemented no doubt by our muscular and "kinesthetic" sensations and memories generally.

But "a bird in hand is worth more than two in the bush," therefore depend as much as possible on the actual touch-sensation of the last-used note until you find the next. It is safest!

FIG. 1

a



“Bent” finger when up

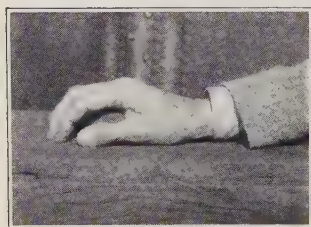
↓
aa

b



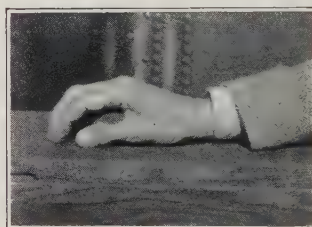
“Flat” finger when up

↓
bb



“Bent” finger, down

(Identical)



“Flat” finger, down

*c*₁



*c*₂



*c*₃



“Flat” finger left unbent when down — shown in three varying positions



Photo by kind permission of The Press Bureau

General Position of Arm, etc.

9. In short, while always thus feeling your way along the Keyboard-intervals FROM the last-played note to the next, you must, nevertheless, in the meantime, also think and play TOWARDS the rhythmical landmarks ahead.

NOTE. — That is: you must think *towards* tone in key-descent; *towards* each next Pulse (or beat) ahead in groups of quick notes; *towards* the rhythmical climax point of each Phrase or Section, and *towards* the point of consummation of the Whole piece. See "Child's First Steps," "First Principles," and "Musical Interpretation," p. 28, etc. (Joseph Williams).

10. To enable you to travel from one note to another, you must, where necessary, supply *sideway* movements of the fingers, of the hand, and of the arm — both of the whole upper-arm and the forearm. As these lateral or horizontal movements are visible, they are obvious and need little explanation.

11. There are however three points to notice: —

I. In taking skips *within* the compass of two octaves it is best to leave the Elbow stationary. To succeed in this, you must, before beginning the skip, turn the elbow out sufficiently to enable you to reach the note furthest out.

II. When you turn your finger over your thumb (or *vice versa*) this requires a movement of the hand — with the thumb stationary; whereas, when you move the thumb under a stationary finger, this requires a movement (sideways) both of the wrist and of the forearm — though not of the Elbow.

III. When playing scales, etc., it is best to have the wrist (and consequently the forearm also) turned rather "outwards" (away from you), as this allows of your turning the fingers over the thumb without disturbing the relative position of wrist and forearm during the passage.¹

12. This necessity to feel your way along physically finally resolves itself into an "ACT OF RESTING *on the keyboard*," either at its *surface*, or *depressed* level; and this leads us naturally into the consideration of the problems of Staccato and Legato.

¹ The Forearm therefore here travels with the wrist *in advance*, when the passage moves outwards. See also: ¶¶14, 15, etc. of Section XII, "On Position."

Section XI

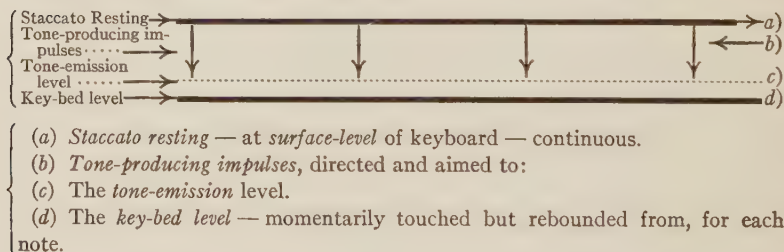
STACCATO AND LEGATO

1. The term *staccato* should properly signify “staccatissimo,” practically *without duration*, as short as possible. The term “Staccato,” as used colloquially and loosely, is however unfortunately applied to *all* notes *not* played Tenuto or Legato. Hence, when playing passages marked *staccato*, remember that the sounds, in spite of their notation, may probably, nevertheless, need more or less slight *durations*. Therefore, be most careful to choose the *precise degree* of Duration musically needed for every note marked “staccato.”

2. Now, in true Staccato (or *Staccatissimo*) the key must be free to *rebound*, so that the damper may instantaneously stop the sound, almost at its birth.

3. To obtain such true Staccato you must accurately *time* your tone-making impulse to cease completely the moment you reach sound in key depression. Thus the key will be free to rebound even with your finger-tip still upon it, and the damper will consequently reach the strings instantly.

NOTE. — The following Diagram may here prove suggestive:



4. Realize particularly, that you cannot “make” staccato by trying to *pull* the key or your fingers up! All you can do is accurately to stop both the down-impulse of your finger, as well as the help given by hand and arm during key-descent.

5. To enable your finger, etc., in Staccato thus to stop its action accurately and completely, you must *rest* very lightly indeed on the keyboard-*surface* — not more heavily than the keys will bear at their surface-level, without becoming depressed.

Thus, in Staccato, *in between* the sounding of the notes, your arm must be more or less completely “poised” (supported by its own muscles) and with the hand, alone, lying loosely upon the keyboard-surface for the sake of the sense of continuity. See “*The Poised Arm*,” Section V.

6. Agility passages as a rule demand a precisely similar *light* Resting on the keyboard, — arm “off” with hand lying loosely on the keys; and with similar accuracy in the aiming and cessation of your finger-action, etc.

The arm thus comes into sympathetic *vibration* in consequence of the reiterated impulses of the finger and hand against the Keys, and thus forms true “Arm-vibration” touch. See Section XII for this.

7. To obtain TENUTO, do *not*, as in Staccato, thus fully and completely cease your finger-exertion, etc., but allow this exertion to continue in a slight measure on the *key-beds* — just sufficient exertion to keep the keys depressed.

This Tenuto will last just so long as you continue this slight action upon the key-beds with your finger-tips.

NOTE. — This sustaining action must be provided solely by the “small muscles” of the fingers. See Section VIII, ¶¶4 and 5, also Note to ¶6 — “The Holding of Notes.”

8. Moreover, to obtain a true *legato* you must continue this light holding action *until* the next sound; and if you continue it beyond that moment you obtain *legatissimo*.

9. It is in this way that you produce the ARTIFICIAL form of *legato*. Notice, however, that you do not here employ sufficient weight continuously resting on the keyboard to *compel* the fingers to hold their notes down. The keys are only held down so long as you choose, thus quite lightly but sufficiently to exert your fingers and hand upon the key-beds. The moment,

however, that you stop this slight exertion, that moment the key jumps up, and the sound stops. This "artificial" form of legato is therefore *un-compelled* by the resting-weight.

10. There is also another form of Legato — the NATURAL-legato.

Here you very slightly relax the arm, so that it is *not* so fully poised or balanced as for staccato, or for "artificial" legato. A very little of the weight of the forearm or whole arm is here allowed to lie *continuously* on the key-beds during each phrase.

This extra weight *compels* some finger or other to continue its slight exertion in support of the weight, until relieved of its duty by another finger. Realize that one finger or other is consequently here *compelled* to support this carried weight, until relieved by another taking its duty.

You thus have a legato *automatically* induced by the weight you allow to rest on the keys at bottom-level. This "natural" legato you might also term "Compelled legato"; for it is *compelled* by this slightly heavier Resting-weight.

11. It is easiest to learn this "compelled" form of legato first. But the *un-compelled* (or "artificial") form of legato is the one you will have to use most often in playing. You may even use it along with the "compelled" form at times.

12. **To sum this up:** You can produce Legato, or Tenuto, in either of two quite distinct ways: —

- | | |
|---|--|
| { | (a) You can <i>compel</i> your fingers to hold notes down by a continuous and sufficient Resting-weight — "Natural legato"; or |
| | (b) You can hold notes down by your fingers <i>without</i> such compelling weight — "Artificial legato." |

NOTE. — In the meantime, as already insisted upon, never hold notes down except by the "small" muscles of the fingers — with *loose* knuckles. Never hold them by the "strong" *playing* muscles (situated on the forearm) with immobile knuckles and wrist, and consequent fatal pressure-inducing effects. See Section VIII, "On Holding Notes," ¶5, etc.

13. Obviously, it does not take more force to hold a note down than is required to sound it at its softest — in fact rather less.

14. There is, however, no harm in occasionally using a little *more pressure* on the key-beds than thus necessary, provided you do so purposely, and so long as you keep clear in your mind the distinction between the sounding and the holding of notes.

You should apply such “after-pressure” only for the sake of comfortably knowing that you *are* holding those particular notes down, and so as to warn you, muscularly, when to let them go.

NOTE. — As already pointed out, this *slight* extra pressure on the keybeds, thus purposely used to remind you that you are holding certain notes down, does not constitute “key-bedding” as you might imagine.

“Key-bedding,” as a fault, arises when you *mis-time* the action *intended* to produce a tone, and mis-apply *this force* to the pads under the Keys instead of carefully timing its culmination and completion *during* key-descent and with the tone, and its cessation forthwith.

See the next Section — “On Weight-transfer” or Passing-on Touch, also Section VIII, “On Holding Notes.” This reiteration is emphatically necessary.

Section XII

WEIGHT-TRANSFER AND ARM-VIBRATION TOUCHES

1. Weight passed-on from note to note — much as in the case of the heavier form of “Resting” used for “natural legato” — may itself form a cause of tone-production, and thus constitutes “Weight-transfer” or “*passing-on*” touch.

2. Such *continuously* passed-on Weight (though light) also entails a CONTINUOUS (but quite *invisible*) exertion of the Hand — in place of the *individual* hand-impulses used in all other touches.

3. The essential difference between "Passing-on" and "Arm-vibration" touches lies in this difference in the (invisible) application of this *continuous Hand-force*: —

In Passing-on touch the Hand-exertion is *continuous* (to the extent of the weight carried); whereas with Arm-vibration touch it is *separately* applied for each finger.

NOTE. — This continuous action of the hand may also entail *intermittently-continuous Rotatory* conditions. See ¶¶21 and 22.

4. The use of Passing-on touch however seriously handicaps musicality, since it almost entirely precludes *tonal selectivity from note to note* — the very life and soul of playing, and also precludes Duration-contrasts shorter than Legato.

5. All rapid *musical* passage-work, such as you find in BACH, BEETHOVEN, and CHOPIN for instance, imperatively demands such tonal and durational individualization, or musical choice from note to note by Arm-vibration touch. This forms the difference between musical playing and mere rattling through!

6. Moreover, however advanced a player you may be, there is a very definite *speed-limit* beyond which you cannot give these separate (*but invisible*) hand exertions for each note, and beyond which speed they are bound to merge into a continuous though light hand pressure behind the racing-along fingers (Passing-on touch therefore) to the destruction of Music.

7. The moral is, *never play musical passage-work faster* than you can give these *separate* hand-stresses for each note.

NOTE. — The composer surely meant them to be played *musically*, but he himself could not play them musically beyond a definite speed. Always remember this fact — unless you do not mind giving up everything to mere Agility-virtuosity and Display, and have no sense of Musical Morality!

8. Passing-on (or Weight-transfer) touch is only appropriate for certain light Arabesques and harmonic swirls of notes needing no more than "mass-production" effects of Crescendo and Diminuendo, and for accompanying passages *not* needing Note-

individualization. Spread chords, and the soft end-notes of the ordinary "slur" also call for it.¹

9. As already indicated (*see* Section V, ¶18) all musically melodic passage-work demands the use of Arm-vibration touch, since the fully *poised* arm alone allows you to apply the hand *separately* (but invisibly) for each finger used, and thus enables you really to *choose* your tones.

10. The advantage of the fully poised arm is, that by reaction from the reiterated shocks it receives from the momentary impulses you deliver against the keys with your finger and hand, it is here *actually brought into vibration* as before explained; and it thus serves as an ample Basis for their exertion — and hence its name. — *See* Section V, ¶¶14, 15, and 28.

11. This sympathetic, trembling effect of the arm should however always arise by reaction from these short-lived and tonally accurately-aimed impulses of finger and hand. Never, instead, try to produce the effect by *shaking your arm* — as supposed by some misguided ones. It will certainly ruin your playing!

12. Above all things remember that the hand must (invisibly) *act separately* for each note!

13. The seemingly absurd reminder is here called for, that you have *only one hand* for each set of *five* fingers!

Much passage-work, however, founders just because this simple fact is overlooked!

Ponder well on this, and realize its truth the next time you touch the Piano!

NOTE. — It is so easy to *see* the movement of the five fingers in succession, but not so easy to realize that you must give *five* successive (although *invisible*) exertions of that *one* Hand to render those five fingers effective!

14. Remember, the arm condition *is precisely identical* for Arm-vibration touch and for the *Staccato* Resting; for you must

¹ *See* "The Slur or Couplet of Notes — in all its Variety, its Interpretation and Execution." Oxford University Press.

rest at the *surface-level* of the keyboard in both — with the hand lying loosely on it *in-between the sounding* of the notes. — (See Section XI, on “Staccato and Legato.”) In fact all *light* Agility passages must be played with this lighter, or Staccato-Resting, although the aural impression may be Legato!

NOTE. — Do not forget that the difference between “lightness” and “heaviness” in musical effect depends mostly on *difference in Duration* — on the presence or absence of *holes* in the continuity of the sound.

15. But while all rapid *Staccato* passages necessarily take the form of “Arm-vibration,” it does *not* follow that all Arm-vibration passages are necessarily Staccato! Arm-vibration touch *can* be turned into a Legato, by applying the “artificial legato” process to it. (See Section XI, ¶9.) Remember, that you here hold the notes down — on their beds — by the fingers “working on their own,” and not here compelled into holding-action by a light superimposed Weight resting on the key-beds — as in “Natural-legato” Resting. See Section XI.

16. Here once again the urgent reiteration, that you must *not* hold notes down by the “strong” muscles of the fingers (situated on the Fore-arm) through which you *sound* the notes, but instead you must hold them down solely by their “small” muscles.¹

17. Always realize, if you (wrongly) *continue* on the key-beds the exertion of the “strong” finger-muscles you use *during* *Tone-making*, that you hereby again lapse into “Passing-on” (or Weight-transfer) touch, with all its disadvantages musically and physically.

NOTE. — Moreover, if, in addition to this fault, you continue to lapse the “FULL WEIGHT” of the arm on the key-beds, you are doing your best to wreck your playing and your Piano, and besides, seriously risk contracting Cramp and Neuritis, and all the physical ills associated with bad Technique — an evil teaching-inheritance of the Past, and which some of our present-day writers are foolishly trying to revive or perpetuate!

18. Much of the musically arid passage playing, and “*too fast*” playing (rattling and strumming) so often heard even

¹ Or “lumbicalis,” to use the anatomical jargon affected by certain writers of today. See Section VIII, ¶¶4 and 5.

from the Concert-platform must be laid to the door of the mis-use of Passing-on (or Weight-transfer) touch in place of the needed Arm-vibration touch, — unless it is the outcome of sheer laziness, in which case no Touch-form can help the *un*-maker of music!

19. Anyway, avoid the folly of trying to run at the Piano with a heavily-resting Arm. In ordinary life, when you wish to run, you rid yourself of all unnecessary baggage!

20. Reversals or reiterations of the Forearm-rotatory Element are obviously needed for Arm-vibration touch (as everywhere else) for each note *individually* — although usually quite hidden from the eye in a rapid passage.

21. But with Weight-transfer touch the rotative changes may occur sometimes in conjunction with whole *groups* of notes.

That is, with the *continuously* applied hand-and-arm stresses of Passing-on touch you have the option also of Forearm-rotatory *continuity* (in a measure) in place of the usual individually applied rotative reversals or repetitions from finger to finger; whereas, in other touches there cannot be such option. If, however, such optional *continuous* rotation-stress is used, it will then naturally alternate in direction according to the various succession of fingering *groups*.

22. Lastly, with such exceptional touch-form, you may allow actual rotatory group-movements to accompany such optional *continuous* rotatory impulses. For instance, a scale moving outwards would be in *two* groups, with a rolling *movement* from thumb to middle finger, then a momentary reversal to the thumb, followed again by another continuous roll till the ring or little finger is reached.

NOTE. — No doubt such optional rolling *movements* (or rotational grouping of notes), feasible with Passing-on touch, have suggested those childish “*Undulatory Theories of Touch*” which certain recent authors (and some more ancient ones) have propounded. Such fancies, however, can never be accepted as the *explanation* of Touch, since we know that mere *movements* cannot be the *actuating* Cause of Touch. Some artists may have adopted such particular fads of Movement, as they also adopt others; but they do not owe their success to such “undulatory” movements, or to any other fancy of the moment; but because they nevertheless

happen (invisibly) to *exemplify the right things muscularly* in the meantime — along with a sufficiency of Musical Sight. And given *that*, any amiable little fads are quite forgivable!

23. This chapter is earnestly commended to very searching study. Perhaps it is the most important of all, since so many otherwise fine players often fail owing to lack of understanding of the facts herein made plain.

Section XIII

ON POSITION

— *And Movement.*

1. Good Position is the *resultant* — but not an assurance — of correct *balance* in the forces you use. Position, on the whole, will take care of itself if you apply the actuating forces correctly — but these are mostly *invisible*.¹

2. While neither good nor bad Position can ensure good or bad playing, yet there are some points where ill-chosen Position may make things that matter more difficult. Hence study the following warnings and advice.²

3. Avoid sitting too close to the instrument, with your upper-arm straight down from the shoulder, since you then lose the option and advantage of Upper-arm weight when you need it for singing tones, etc. Sit sufficiently far away, so that your upper-arm slopes forward with the Elbow, and does not hang straight down or even slope backwards. *See Photo annexed.*

NOTE. — *See also page 305, "The Act of Touch,"* — the outlined figure of ANTON RUBINSTEIN.

¹ Study also this same Section in the "Digest" itself, and the Chapter on "Position" in "The Act of Touch" — Longmans, Green & Co.

² You may hold your fingers, hands and arms in perfectly orthodox positions and yet your (invisible) playing-*actions* may be perfectly wrong and ineffective.

4. Sit neither too high nor too low. It is best that the Elbow should be about level with the keys or slightly lower.

If you sit higher than this, you are likely to *drive* forward when you should be using Upper-arm Weight; and if you sit lower you are likely to allow the upper-arm to hang on to the keyboard, when its Weight should be "off."

5. If you have a long *Upper-arm* you are compelled to sit *higher* than those born with a shorter *upper-arm*, else your Elbow will be too low to be comfortable.

6. Do not sit all hunched and bunched up — do not relax all your Body-muscles because you have to relax your arms at times! It is distinctly unhealthy, of no profit technically, and ugly. Besides, to see an ugly thing before him, is apt to make the listener imagine that the sounds also are ugly.

Freely and *easily* therefore keep your body erect.

7. Do not sway and move about unnecessarily — neither with your body nor with your arms.

If you make the listener watch your body, to that extent he listens less to your soul — which one hopes you may be trying to express!

NOTE. — If you play freely as you should, it is easy to move about — but *don't!* Whereas you dare not move about if you play stiffly and badly. But *don't* play stiffly and badly for the sake of sitting immobile!

8. Avoid using UPPER-arm rotatory *movements* — and exertions — in place of the much neater, easier, and effective *forearm* rotatory movements, when playing tremolos, etc.

Again, this is waste of energy and also distinctly ugly. Liszt used to deride such Elbow-circling — he called it "making Omelette!"

NOTE. — In any case it is abominably bad Technique to substitute *upper-arm* rotatory *stresses* (actions and relaxations) in place of the necessary ones of the Forearm.

9. Always keep distinct the process of *moving towards a note* from the process of actually *sounding* a note, when found.

10. Avoid jabbing at the notes with sideways (horizontal)

actions of your arm. First arrive on each key, or over it, and *then* proceed purposefully to play that note. This does not mean that you should pause between the two operations!

11. As already pointed out in Section X, ¶11, to enable you to turn your fingers over the thumb easily, allow the Wrist to turn slightly *outwards* — with the hand therefore pointing slightly *inwards*.

During *Scale playing* retain that position permanently. It avoids unnecessary to-and-fro movements of Wrist, Hand, and Forearm.

12. Reverse this when turning a long finger over a shorter one, as in double-notes passages — turn the wrist inwards then.

13. In arpeggio playing you cannot permanently keep your hand thus turned inwards. To-and-fro (sideway) movements of the hand, wrist, and forearm cannot here be avoided, but let their range be as small as need be.

NOTE. — Slight rolling movements, even, may also be permissible, although *not* in the least essential.

14. When taking *skips* within a two-octave range, turn the elbow outwards sufficiently, before beginning the skip. To move the elbow *during* such skips is cumbrous and unsafe. See Section X, ¶11.

15. For larger skips you cannot avoid moving the whole arm. A composer who knows how to write well for his instrument usually bears this in mind, unless it is done for “sport”!

16. With regard to Hand-position, the main point is, avoid *kinking* the knuckles in. It is a very bad method of playing, and is almost sure to render hand and fingers stiff and weak.

17. If you allow your knuckles thus to drop in, or to be forced in, you are either (*a*), applying too much energy from the hand and arm, or (*b*), you are insufficiently exerting the fingers themselves at the moment of depressing the key — or after that!

18. The same thing applies at the wrist-joint. If your wrist drops down too much, you are either exerting your hand insufficiently, or are giving too much Arm-energy in proportion

to the finger and hand exertions, — since action and reaction should always nicely balance.

19. The actual *shape* assumed by the hand and fingers, however, varies with each individual, and *even with each passage* — whereas the keyboard never varies! Hence the folly of laying down any inflexible rule on this point, although it is well to realize that the arch is *mechanically* more effective than any other position.

In short, the Position of your hand and fingers which enables you to play at your easiest (and therefore best) is also *the best possible position!*

NOTE. — I, personally, vary the position of my wrist, hand and fingers to suit each particular passage. Position is not a thing to worry over, it effects itself, if you correctly supply the *invisible* actions.

20. *Finger-position* and *movement* have been fully discussed in Section IX, "Flat and Bent Finger," and in Section VII, and illustrations are there given.

21. Finally then, if you learn to provide the correct *balance* between the exertions and relaxations of your finger, hand and arm which we have discussed, well-poised Position will ensue naturally.

Section XIV

ON NOMENCLATURE — THE NAMING OF THINGS

1. Nomenclature is of little consequence. It is only a matter of convenience.

2. "Touch" is a generic term, including everything relating to Tone-production and Technique.

3. In past days it included: —

- | | |
|---|---|
| { | (a) Tone contrasts — "Forte and Piano touch." |
| | (b) Duration — "Legato and Staccato touch." |
| | (c) Movement — "Finger, Hand, and Arm touch." |

4. Nomenclature in the past thus referred only to the aural and *visual* effects noticed, and not at all to the invisible *causal processes* of Touch — those far more important but *invisible stresses* of Touch which you have to provide, so to create the differences in Tone, Duration and Time-inflection.

5. Thus you can help your finger exertion by: —

- | | |
|---|---|
| { | (1) a <i>loose-lying hand</i> (and rotation), (“First Species”), or |
| | (2) a <i>down-exerted hand</i> (along with these), (“Second Species”), or |
| | (3) some form of <i>arm-stress</i> (along with these), (“Third Species”) — and the arm can give you four <i>sub-species</i> ! |

6. For rapid finger-passages you may use either Weight-transfer or Arm-vibration touch, preferably the last, or else a cross between the two.

NOTE. — Remember: *Weight-transfer touch* is a modification of the heavier form of Resting needed for “Natural Legato”; whereas *Arm-vibration touch* mainly consists of “second species,” with a well-poised arm, but may waver towards first and third “species” as occasion demands.

7. It does not help things much whether you remember or not that I adopted the term “Species of Touch” to denote these three basic differences in DOING, so long as you vividly remember the facts concerned in actual performance.¹

8. Likewise, it does not matter whether you call the differences between horrid-sounding and well-sounding tone a difference in *quality* of Tone, or “XYZ and VWQ-tone,” or call it a difference of “Quantity.” But unless you have mastered and can exemplify *such differences* in playing, you cannot fully express yourself musically.²

¹ See “The Act of Touch,” Chapter XII (Longmans); also an additional Chapter on this point in “Relaxation Studies” (Bosworth); and “Commentaries” on the merging of the three species, p. 14.

² See Additional Note in the *Digest*: “On the Ugly and Beautiful in Piano Touch.”

9. Nomenclature suggestive of *wrong* Doing may however prove harmful — the term “Fixation” is such a term. It is obnoxious as it suggests “stiffening.”¹

10. “Fixation” was invented to express the fact that there must be an immobile, stable, or resisting Basis for all the actions we use in playing. Unfortunately, as shown in previous pages, it suggests quite the wrong way of attaining such required Basis.

11. Remember, the proper way to *counter* the upward reactions is by supplying a down-stress (in some form or other) from the next adjacent part of the limb.²

12. Avoid, therefore, this ill-gotten term “Fixation,” and at all cost learn to avoid *all* “stiffening.”

13. Finally: all such cataloguing, or naming of things is very arid, and does not matter musically — unless suggestive of ill-doing! What does matter, is to acquire and remember the *sensations* of *Right Doing* — expertness in *sensation-ally* recalling and thus re-creating the necessary tonal effects, so that your musical Self-expression shall be unfettered, and shall fully convey to others what you are able to perceive musically.

14. Unless you have mastered *Technique* in this practical and spiritual way you will ever remain an inefficient Pianist, instead of being a true Music-maker, or even a Prophet of Music!

¹ It was invented in the recent past by those who could still see no further than the observed *Movements*, hence their wrong diagnosis of Touch.

² Thus to recapitulate once again; to use your finger effectively against the Key you must indeed do something to *counter* its reaction upwards against the knuckle during Key-descent. But it was wrongly supposed that the knuckle must therefore be *stiffened* — hence this term “Fixation.” Whereas you now know, that although the knuckles must be made to *resist* during the finger’s action against the Key, there should be no “stiffening” whatever, but instead you must give a nicely-timed down-exertion *of the hand* to counter the recoil at the knuckle; moreover, remember, that this down-exertion of the hand must *cease* instantly it has served its purpose, and that the knuckle must therefore be quite mobile and loose *in-between* the sounding of the notes; while the “small” muscles of the finger alone continue the holding of the key either at surface or key-bed level.

CODA

CLEARLY then, the solution of the problems of Technique are not to be found in knowledge of Nomenclature, nor of Movement, nor of Position.

They are matters of *Mind* and *Muscle*, mostly Invisible, and therefore not soluble by Eye-analysis. To help yourself pianistically and musically you need: —

KNOWLEDGE AND UNDERSTANDING OF: —

Key-movement.

Key-attention.

The shortness of the act of tone-production.

The six ways of arm-use.

**Finger-and-hand exertions individualized for each key-descent.
The distinction between the sounding and the holding of notes.**

**The inseparability of technique from the constant exercise of
MUSICAL PURPOSE.**

FIFTY-FIVE DAILY MAXIMS

— *For all players.*

1. Without Rhythm there is but Emptiness.
2. The day for Piano-typewriting is past. But it is never past for Music!
3. What you have to learn is to *intend every note* you play — an *intentional sound* and an *intentional time* — and an **intentional Duration**.

NOTE. — To succeed in this, LIMB-Knowledge is needed — not Muscle-Knowledge!

4. That is the long and short of “Technique.” Therefore you cannot learn Technique without learning to attend just like that — *to Music*.
5. The worst crime in the Past was to try to teach Technique apart from exercise in Music.

6. *Musically*, always sound each note *as late as you dare*, yet *technically* always make each note *early enough* — in key-descent!

7. First learn to use Arm-weight so that you can sing.¹ After that, learn to keep the arm “off” — so that you can run. Feel and hear it is “off” — you cannot see it!
8. Don’t *put* your arm down, but instead allow it to “give,” when you need its weight.

9. The arm is never “dropped” upon the keys, “the louder the note, the greater the height,” *except by fools!*²

¹ That is: the whole arm momentarily free from the shoulder (to the tone-required extent) — either visibly or invisibly — with *elbow* always free.

² To ascribe such mis-teaching to myself is indeed folly at its height!

10. If you really hit the key down by a “drop” of the arm, you can neither “feel” the key nor make Music!

11. You need the *Poised Arm* (the self-supported, floating “arm-off” condition) *in every passage* — either fully poised, or sometimes a little less so. But in some passages (for Agility, Staccato, etc.) this poised condition is *continuous*, whereas elsewhere (for chords, cantabile, etc.), it is *momentarily relaxed during key-descent*, but afterwards instantly resumed.

12. To kill Music — and your Piano, drive well forward and downward with rigid Elbow! But don’t be so foolish!

Even when you momentarily use Forearm Down-force in addition to Upper-arm weight, always keep the Elbow *still free!*

13. In the meantime don’t forget to “use” your key — and to *exert* your finger — and hand-exertion behind it — for each note, every time.

14. If you want to *run* you throw all baggage away! At the Piano do the same — keep the “arm-off” when you want to play a run! With the arm “off,” choose every note’s tonal and durational inflection when playing real music at speed.

Never play faster than you *can* thus choose.

15. *In-between* the sounding of the notes (however heavily you sound them) again “Arm-off,” with nicely loose knuckles — if you wish to play musically.

16. The teaching of “Weight” without insistence on its due *cessation* is just as pernicious and mischievous as the old teaching of key-hitting “solely by finger-stroke!”

NOTE. — In very quick passages you *may* carry along *slightly* more weight with impunity, as the so quickly succeeding keys here keep the burden off the key-beds.

17. Always hold notes solely by the “small” muscles of the finger — with free, mobile knuckles, however forcibly your

finger may “grip” the key during its descent. Else you can neither choose your tone, nor move along freely.

18. Don't make *cantabile* passages *sting*, make them *sing* instead!

19. For singing tone, keep the *elbow* elastic, keep it free, easy — *always* easy at the Elbow.

20. While the Elbow feels free to fall, catch and grip well at the keys with your finger *and your hand each time* — just as naturally as when gripping hold of anything else.

21. Let the grip be an *increasing* grip as you swing the key into movement. Don't do it *too late* — always remember Maxim 6!

22. Never use Poke-touch or Shove-touch, with Elbow and Forearm digging into the keyboard.

23. Nor *jab* the key down — instead always *feel* your way *with* it.

24. To help the finger, there are *six* ways of using the arm. Don't *mis*-use them!

You *must always use*: the POISED-ARM and the ROTATIVE-FOREARM.

You *may use* during Key-descent:

- | | |
|---|---|
| { | Forearm weight only, or |
| | Whole-arm weight, or |
| | Forearm Down-exertion with the last, or finally |
| | Upper-arm forward-exertion with the last. |

Avoid the last in all *forte*-playing!

NOTE. — Also avoid a PULL downwards and backwards of the Elbow and Upper-arm as it makes for harshness of tone.

25. The most popular Mis-use of the arm is in its Forearm-rotational aspect. It has thus been misused — invisibly — ever since the invention of the Keyboard!

26. The mischief at the root of most bad Passage-work is in the wrong rotatory exertions of the Forearm — invisibly applied.

27. Be sure, therefore, to cease *all* rotatory exertion in the

wrong direction — even of the “weak” rotatory muscles — when you have to reverse the rotatory help required from finger to finger.

28. Freedom, rotationally, is a *sine qua non* in all playing.

29. Rotational Freedom, in its direction, must always be *away from* the finger last used.

This applies also when a finger is turned over the thumb.

30. When in doubt about a passage, always *re-analyse* it rotationally.

31. The very first time you use your fingers on any keyboard learn at once what is *meant* by rotational-help. Learn it first as Movement, but afterwards learn to give the required stresses *without any such rocking movement* whatsoever.

32. When in doubt, no matter how advanced a player you may be, refer to the first four of the “*Nine Steps towards Finger-individualization*” — played by your fist, just as a child should do.

33. Learn correct Doing at the age of four. It is easiest then! Don’t wait until you are perhaps forty, and then have to un-learn all the acquired “*Wrongth*,” rotationally, and in many another way!

34. Avoid “Passing-on” (Weight-transfer) touch for quick passages that demand musical and muscular individualization of the successive notes. Use Arm-vibration touch instead.

Passed-on Weight means passed-on Tone — musical aridness and barrenness.

35. Never play really *musical* passages quicker than you *can* thus select, time and *mean* each note.

36. Only use Weight-transfer touch for spread chords, arabesques, slur-end notes, and for certain quick passages which do *not* need musical individualization from note to note.

37. Remember, to the extent you *pass-on* continuous Weight, to the same extent you are compelled to pass-on and transfer continuous Hand-stress.

NOTE. — This last may sometimes be accompanied by actual *rolling* (rotatory) *movements* over groups of notes. This quite exceptional touch-form has however given rise to absurd "Undulatory Theories of Touch." Avoid them!

38. Correct POSITION is the resultant of good Balance between the invisible and visible playing elements.

39. CHOPIN said "if your playing *looks* well it probably also sounds well." One might add: "If you *do* well it will also probably *look* well!"

40. Don't sit at the Piano as at a Dinner-table! Give arm-weight a chance, by your sitting reasonably far away.

41. Sit with elbow about level with the keys, and better too low than too high.

42. Avoid pressing your knuckles "*in.*" You cannot run nor walk comfortably with your legs bent double!

43. Don't try to express yourself by *wild movements* of your body and arms; — "Don't *leak,*" as MYRA HESS has well said!

44. Don't force the listener to use his eyes upon you, instead of his ears upon your music.

45. Don't sit all huddled up; it is unhealthy and looks ugly. You want your playing to sound well, therefore avoid distracting the hearer by making it *look ugly.*

46. The *Naming* of things does not explain things!

47. Always substitute a softer note for a louder one, whenever you can. People only BEGIN *to listen* to you when you play softly.

48. This does not imply flabbiness in your singing passages, nor anywhere else.

On the contrary, make every melody note *carry.* Play "inside" the key, even in *ppp.*

49. Nor does *this* mean that you should not use the fullest tone in your climaxes.

50. But *quality* in performance is everything — in spite of the Foolishness that has been talked, and whatever the explanation. Mere noise never convinces anyone!

51. Never rattle along. Instead, always try to *see* Music.
52. Always try to see the Beautiful — through Key and Time.
53. Look for the Beautiful, which is always there *if it be music* — look for the physical, emotional, and spiritual beauty.
54. Always use both your *physical* and your *spiritual* Ear.

55. If it is NOT Music, then it is not worth worrying over.
A typewriter will serve as well!

FINAL PRECEPTS

I. Never touch the keyboard without meaning to make Music.

II. Even in your first exercises —

{ mean the *Moment* of each sound, and see that you get it.
mean the *Kind of sound for each note*, and see that you get it.

III. *Feel* what the musical effect should be — and *feel* the Key — and *how* you move it.

IV. “*Elbow elastic*” for all singing and big tone — during Key-descent — not rigid and pushed into the key.

V. “*Arm-off*” *in between* the sounding of all notes, and *during* all light running passages.

VI. You have ten fingers! So do not forget that you usually need ten separate hands to help them, and often also ten separate arms!

VII. The *Duration* of each note is as important as the *kind* of tone.

VIII. In the quickest passages *mean* every note.

IX. Be a sentient human being, not a contemptible automaton musically.

X. Cleanliness is said to be next to godliness. Sense of the Beautiful is sense of God.

ADDITIONAL NOTE

No. I

ON PRACTISING

PRACTISING does not consist (as so often supposed by teachers and students in the past, and even in these enlightened days by *some* teachers — and most students) in playing through a passage ten times, or twenty times, fifty times, a hundred, or even five hundred times, either slowly or quickly, and more or less *thoroughly wrongly*. But it consists in your trying to *find out all about that passage*; all about it musically and technically, the HOW of it — every note of it, for the sake of the Whole. It consists in your trying to find out precisely *where* its emotion and beauty lies, and what are the required inflections of Tone, of Duration and Time, to bring that beauty to the surface; and also what are the precise technical means which you must employ for that purpose — hence the “HOW” musically and the “HOW” technically. It implies consideration of *every note* before it is sounded, and hearing how it actually does sound. It means you must alertly *notice*, must find out, must analyse how each note should sound and how it does sound.

Moreover, you must *notice* how each note turns into each next note *horizontally* — that is, what the intervals are melodically and physically, and also, how each note fits in vertically with the notes of the other hand — *where* precisely they *meet* in Time — and all this is implied in the learning of the text — the mere “notes” of the passage; and all the while you must be recognizing better what musical value each note has with regard to all the other notes in the passage and the piece as a Whole — the greater or lesser musical importance or unimportance of each. Finally, playing itself, Performance, means actually doing this all the time — so that the musical beauty of the thought shall *come through*.

If your work is not on these lines, then it is merely strumming — a misuse of the keyboard as a typewriter. Instead always try to make *Music*.

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