

§ 5. Grammatical Details.

I. The Sounds.

a) Vowels.

a sounds like *a* in *Shah*.

ḅ is narrow as in *hat*; in Fante as in *gay*.

ɛ is an open *e* as in *let*; French *è*.

e (full) sounds like *e* in *prey*.

ɛ̄ (narrow) is between *e* & *i*; in some Fante dialects approaching to *i* in *pit*.

i is like *i* in *believe* or *ravine*.

ɔ has the sound of *o* in *not*.

o (full) sounds like *o* in *November*; French *mot*.

ɔ̄ (narrow) is between *o* & *u*; in some F. dialects approaching to *u* in *put*.

u is sounded like *u* in *rule*.

Rem. The pronunciation of the vowels given above is only approximate. — The vowels are uttered without the diphthongal sounds frequently heard in English.

1. The vowels are as a rule short; lengthening is indicated by doubling the letter (e. g. *daa*); extreme shortness occasionally by the breve; e. g. *bĕrĕ*.

2. All vowels, except full *e* & *o*, can be nasalized; e. g. *sõ*, *fää*; *ɛ̄* & *ɔ̄*, however, are nearly always pure. Of two or three (different) nasal vowels only the first, or if this be very short, the second, bears the nasal sign; e. g. *tĕɛ̄*, *ohŭāe*. The sign *~* is omitted on vowels before or after *m*, *n* or *ŋ*, if distinction from other words is not required; e. g. *kum*, *nam*; *mā*, *to give*. — Many syllables terminate in *m*, *n* or *ŋ* with either pure or nasal vowels before them. Pure vowels are sometimes indicated by italics, e. g. *pam*.

3. **Assimilation of vowels.** The open vowels *a*, *ɛ*, *ɔ*, requiring the widest opening of the mouth, are changed into the *half-open* vowels **ḅ**, full *e* & *o*, when followed by one of the *close* vowels *i*, *u*, or by *gya*, *nyā*, *twa* or *dwa*; but remain unchanged before the *half-close* (or *narrow*) vowels **ɛ̄**, **ɔ̄**. Under the same conditions, **ɛ̄** & **ɔ̄** either are changed into *i* or *u*, or remain as they are. In compounds these modifications are seldom followed in writing.

The ordinary literature omits the dots under **ḅ**, **ɛ̄**, **ɔ̄**. Nevertheless we may distinguish the unmarked narrow *a* or *e* & *o* with the help of the following rules:

a) whenever **a** is followed by one of the close sounds or by *gya*, *nyā*, *twa*, *dwa*, it is narrow; e. g. *ayi*, *agya*; b) when **e** or **o** are preceded by an open vowel, they are likewise narrow; e. g. *ékó*, *òbéré*.

Narrow **e** & **o** are original sounds, more frequent than full **e** & **o**, which occur seldom as independent vowels, but often as modified **e** & **o**. Full **e** & **o** are for the most part found in prefixes, very rarely in verbal roots.

4. Diphthongs and Triphthongs:

- a) *ae* *āe* *ai*; *ee* *ei*; *oe* *ōe* *oi*; *ui* *ūi*; — *aii!*
 b) *aw* *āw* *au*; *ew* *ew* (*əw*) *iw*; *ow* *ow* (*oʷ*) *uw*; — *ao!*
 c) *ia* *iā* *iaw*; *ěā* *ěaa*; *ūa* *ūaw*; *ūaa* *ūāā* *ūae* *ūāe*; *ūō*.

5. Disyllabic combinations of vowels:

- a) *ia* *iā* *iē* *ie* *io*; *ea* *ēa* *eē* *ēe*; *ea*;
 b) *ua* *ūa* *ūe* *ue* *uo*; *oa* *ōa* *oē* *ōe* *oo*; *oa*;
 c) *iae* *iei* *eae*; *uae* *uei* *oae* *oee* *eaw* *eww*.

Rem. a) In *ūa* the *u* is similar to French *u*; e. g. *dua*, *aduaŋ*; Fante *duña*, *abusūia*. — b) Almost every vowel can occur with every other as a diphthong. — c) In some Fante dialects there are not so many diphthongs as stated above under 4 & 5; e. g. for *ae*, *ee*, *ua*, *uae*, we find *aa*, *ee*, *wa* or *uya*, *we* &c. — Gr. § 1 ff. 17.

b) Consonants.

	Plosives		Fricatives		Affricates		Semi-vowels	
	voiceless	voiced	voiceless	voiced	voiceless	voiced	nasal	pure
Velar	k	g	(hy)	h			ŋ	
Palatal	ky	gy	hy				ny	y
Dental	t	d	s		ts	dz	n	r (l)
Alveolar	t	d						
Denti-labial			f					
Bilabial	p	b					m	w
Labio-velar	kw	gw		hw			ŋw	
	kū	gū		hū			ŋū	
Palato-labial	tw	dw	hw=fw				ŋw̄	w̄

Obs. There are dialectical and local differences in the pronunciation of the above letters. —

k is like English *k*. It occurs before *a*, *o*, *o*, *u*; before *ε*, *e*, *i* only when the next syllable of the same word begins with *s* or *t*, and when *e* is shortened from *a*. **K** interchanges with **g** or **h**.

g is always hard, as in English *go*, *get*, and is found before *o* & *u*. It interchanges with **k**.

h resembles English *h*. It sounds strong before pure, and weak before nasal, vowels. Before the former it is by some persons pronounced like *ch* in Scottish *loch* or in German *ach*. **H** interchanges with **k**, **s**, **hw** (= **fw**), **w** & **y**.

ŋ is sounded like *ng* in *sing*; and interchanges with **m** & **n**. It does not begin any root. As initial consonant it is either a transformation of **g** or **dw** (e. g. *ŋpo*, *ŋwō* = *ŋ-go*, *ŋ-dwo*), or it serves as nasalization of **w** & **w̄**. As final consonant it is more frequent in Akp. than in the other dialects. In Akan we usually find *ane*, *ene*, &c. in its place, in some Fante dialects simply **n**.

ky occurs before palatal vowels, and both constituent letters are sounded; **y**, however, weaker before *e*, *ē*, *i*, *ī*. In Akem the pronunciation of **ky** slightly approaches to that of 'ch' in church, whereas in Fante it is nearly like **ch**. In Asante the **y** is sounded less distinctly, especially before **r**; e. g. *kēre* = *kyere*.

gy is softer than **ky**, and appears before (*a*), *e*, *ī*; before *ē*, *i*, *ī* the **y** sounds weak. In certain Fante dialects **gy** is pronounced like English *j*.

hy represents the *ch*-sound in Scottish *nicht* or in German *ich*. In some Fante dialects it is like English *sh*.

n as in English. It interchanges with **d**, **r**, **m**, **ŋ**. When united with nasal vowels, it is an original sound; when followed by pure vowels, it is a transformation of **d**. Before dentals, **n** is dental, before palatals it is palatal.

y as in English *yet*. It occurs before *a*, *ε*, *e*, *i*, (*o*, *o*); before nasal vowels and in some Fante words '*ny*' takes its place. It interchanges with **ny**, **w**, **ŵ**, **hy**, **h**.

ny, a palatalized (unsyllabic) *n*, resembles *ni* in companion or *ñ* in *cañon*. **Ny** is an original sound before *ā*, *ē*, *ī*; before pure *a*, *e*, *i*, it is a transformation of original *gy*.

t is nearly like English *t*, and occurs before pure and nasal vowels. It interchanges with **s**. In dialects, dental and alveolar *t*'s are found; in Fante also the retroflex *t*.

d is alveolar in Akuapem and Asante; dental in Fante (& Akem?); retroflex with tribes whose mother-tongue is Guang, but who speak Tshi besides. **D** occurs before pure and nasal vowels; before the latter, however, only when they are followed by **m**, **n** or **ŋ**. It is changed into **n** by an **m** (**n**, **ŋ**) before it, and into **n** or **r** by negligent pronunciation.

ts & **dz** are found in Fante dialects before (*ε*), *e* & *i*, where other dialects have only **t** & **d** respectively. **Ts** sounds almost like *ts* in *hats*; whereas **dz** is the corresponding soft and voiced sound. **Dz** interchanges with **s**.

s is sharp as in English *sun*, and occurs before pure and nasal vowels. Before *ūa* & *īa* it is palatal (slightly approaching to the sound of *sh*); the pronunciation varies, however, locally. It interchanges e. g. with **h**, **t**, **hw** (= *fw*), but seldom. — In Fante we sometimes find *d* or *dz* for *s*.

r is the rolled or trilled Scottish *r*. It does not begin any genuine Tshi word or root, but only secondary syllables (*pra*, *fre* = *pāra*, *fēre*). In the prefix *re-*, also in *ara* and *nnera*, it was originally *d*. Before nasal vowels **r** interchanges with **n**; e. g. *trā*, *tēnā*. In foreign words **r** is used instead of **l**.

f is sounded as in English. It occurs before pure and nasal vowels, and interchanges (seldom) with **hw** (= *fw*), **h**, **p**, **s**.

p is sounded as in English. It is found before pure and nasal vowels, and interchanges with **f** & **w**.

b is pronounced as in English. It occurs before pure vowels and *āā* in *bāā*; and is changed into **m**, **w**; (*o*), *u* (adibane: *aduane*); pp. XIX and XXIII, III. Gr. § 18ff. 37.

m is pronounced as in English. When original, it is united with nasal vowels; when followed by pure vowels, it is a transformation of **b**, caused by a preceding **m** (or orig. **n**, **ŋ**). It interchanges with **b**, **w**, **n**, **ŋ**. — *M* before *f* is by some persons not formed with both lips, but with the lower lip only; e. g. *ahenfó*; usual form: *ahemfó*.

š, nearly like *sh*, is used in foreign words only.

w, a bilabial semi-vowel, is pronounced with the lips more contracted and less protruded than in the English *w*; it has a soft sound before *o* & *u*. It is found only before the pure vowels *a*, *o*, *o*, *u*. As a final sound, **w** forms diphthongs, which are, however, usually avoided in Akan. **W** interchanges with **b**, **p**, **h**.

kw, gw, hw, ŋw; kũ, gũ, hũ, ŋũ, e. g. in *okwāŋ, Akwam', Okwamni; & Akua-pēm, Okuapēnni, egūá, oguāŋ.* The difference in spelling is justified by the fact that one form of the words has open prefixes, which require the writing *kw*; whereas the other form has close prefixes (*a. full e & o*), which change can only be due to the influence of a succeeding *u*. The labio-velar combinations *kw, gũ &c.* occur frequently before *a*; in *F.* dialects also before *ε, e, i*. In *F.*, *kw* is found also before *a, ɔ, u*, where the other dialects have simple *k*.

ǃ, a palato-labial vowel, sounds like *wy* pronounced simultaneously. It is found before the pure vowels *ε, e, i*; in some cases also before *ɔ, o, u* when standing for original *ε, e, i*.

tw, dw, fw are palato-labial sounds, in most cases transformed from labio-velar *kw, gw, hw*, as they still sound in some parts of *Fante*. — As to *tw & dw*, this transformation originally took place before *ε, e, i*; but when followed by a final *m* or *w*, these vowels have usually been changed into *ɔ, o, u*, and have retained this form also when the final *w* was dropped. *Twa* is originally *kwea*, or *kwea*, or *kwia*. The older forms *e. g.* of *twa, twē, twɛŋ*, are in *F.* *kwia, kwē, kwɛŋ*; those of *dweŋ, adwe, adwini*, are *gweŋ, agwe, egwiui*. — In *Ak.*, the combination *gūa* or *gw (F.)* also has been transformed into *dwa* or even into *jūa*.

tw sounds like '*chw*', *ch & w* being pronounced simultaneously, without protruding the lips. These are compressed from the outset, at the same time at which the tongue is applied to the palate, and are opened simultaneously with the withdrawal of the tongue.

dw sounds like *dy* simultaneously pronounced with *w* (without protruding the lips). In *dwe, dwe, dwi*, the *w* seems prevalent, in *dwo* the *y*. In dialects of *Asante Proper* the sound of *dy* passes into that of English *j*; *e. g.* *jo = dwo, ajwa* or *ajūa = adwā*.

fw = bilabial fǃ. For the pronunciation of these letters the mouth is formed as for whistling, the round aperture of the lips being a little larger. By the forming (*i. e.* contraction) of the lips and the simultaneous raising of the tongue for **ǃ**, the original *h* has become *f* uttered with both lips. In the pronunciation of *fw* the *h* is no longer heard, the place for narrowing the passage of the breath having been shifted by the influence of the following *w*, and being now more between the lips than in the velar region. This is not so much the case in certain *F.* dialects. — It is to be observed that in the present script *fw* is no more used; accordingly **hw** represents both the labio-velar and palato-velar sounds *hw & fw*.

✓ The sounds **kp, gb, tf** (= *ch* in church), **ɣ** (a voiced velar fricative), **l, v, z** occur in *Western Tshi* dialects, **l** also in *Fante*. — Gr. § 8ff.

Assimilation of Consonants. Gr. § 18.

m stands before	<i>p, f, m</i> ;	mb become	<i>mm</i> ;
n " "	<i>t, s, n</i> ;	nd " "	<i>nn</i> ;
	<i>tw, ny, y</i> ;	ngy " "	<i>nyy</i> ;
ŋ " "	<i>k, kw, ky, h, hw, hy, ŋw</i> ;	ŋg " "	<i>ŋŋ</i> ;
	<i>w, hw (= fw), ŋǃ, ǃ</i> .	ŋdw " "	<i>ŋŋw = ŋŋǃ</i> .

c) Spelling.

The spelling used in the *Tshi* literature and also in this *Dict.*, is mainly etymological. Each word is given in the form it has when standing by itself, without the modifications caused in fluent speech by preceding or succeeding sounds. *E. g.* *mma yi, these children; wəhwe mu, they look inside; yeŋ wura, our master,*

(pronounced *m̄ma yi, w̄ohwe mu, yeŋ wura*). — To avoid ambiguity, the letter *w̄* is used; e. g. *awowa, a pledge; aŋwowa, a brass basin; ŋŋwo, fr. wo, to beget; ŋŋw̄o, fr. dwo, to cool, or w̄o, to dry up.* — Sometimes simple *m* or *n* is put instead of *mm* or *nn*, = *mb, nd*; e. g. *m* = *mb* in terminations (as *nneema, ntrama*), or at the beginning of words (e. g. *mogya, muka* = *bogya, bukyia; ne, nera; F. nde, ndeda, fr. edá*). — Very *short vowels* before a syllable beginning with *r* are frequently omitted, especially after strong consonants (*p, t, k, f, s*) and open vowels, or before syllables made weighty by a long vowel or final *m* or *ŋ* (or *w*); e. g. *pra, sra, bra, fre, pram, krəŋ, prəw &c.*, instead of *pāra, fēre, pāram, kōrəŋ &c.* The *full writing* is generally employed after weak consonants and when the vowels are *e, i, o, u*; e. g. *hāra, bēra (imp. of ba), bere, biri, boro, buru, tiri, kuru &c.* Provision has been made in the Dict. that a word can be found whether sought for in the full or shortened writing.

The postposition *mu* is often used in the shortened form *m* or *m'*; e. g. *anim, asōm'; twam', to pass by; bōm', bom', to cry out.*

IV. Intonation.

A. In Tshi every syllable of every word has its own relative tone or tones, either equal with or different from the neighbouring syllables. There are five different tones: high, middle, low; rising, and falling. They are indicated thus:

1. The first *high* tone in a word or phrase is marked with an *acute* accent: obó, *stone*; obófo, *creator*.

2. The *middle* tone, i. e. the tone following after a high tone and descending by one step in pitch, is likewise marked with an *acute* accent: obófó, *messenger*.

3. Any *low*-toned syllable preceding the first high tone of a word or phrase, is left *unmarked*: onyansáfó.

4. A *low* tone after or between high tones is marked with a *grave* accent: ósù, *she weeps*; akúkòmfi, *grasshopper*.

5. *Unmarked* syllables following a marked one, are of the same tone: akókò-nini, *a cock*; obábarimá, *son*.

6. The *rising* and the *falling* tones are marked thus: ekàá, *finger-ring*; sáá, *a saw*; mâño, *mango-tree*.

7. The semi-vowels **m**, **n**, **ŋ**, **w** have their own tones, and form syllables: som', háŋŋ, mfá, mmá, ŋŋó; ɔsaŋ' nò, *he infects him*; ɔsa'ŋ) no, *he infected h.*; ɔsèw, *he spreads*; ɔséw', *he spread*. Gr. § 25.

B. In nouns, the *stress* (i. e. the emphasis put on a *syllable*) lies either on the first high-toned syllable, or on the low-toned before it. In the former case the stress does not require a special mark, e. g. ohéne; in the latter, a *grave* accent is used: ábóá; obòfó, *hunter*. In nouns with low tones throughout, the first stem-

syllable usually carries the stress; as wòfa, anàñse. If a word in a sentence is to be made emphatic, it is placed at the beginning of the sentence, and a short pause or the conjunction 'na' follows. Gr. § 26. 247.

C. Connected Form of Nouns. — The 'connected form' of a noun is that which it assumes

1. after a noun or pronoun in the possess. case: òhéne dóm, *the king's army*; mé fi, *my house*.

2. after a noun or pronoun to which the connected noun stands in apposition: àbóá anàñse, *the animal 'spider'*.

In the connected form the following changes occur:

1. The prefixes ε, e, o, o are usually omitted, except the preceding vowel be open (a, ε, o); e. g. ofie kwáj, *the way home*, (instead of ofie òkwáj).

2. The prefix of the connected word, when o (after a, ε, o), or a, m, am, joins the preceding word with an equal tone; e. g. òbá: né núa (o)ba, *his brother's son*.

3. The tone of the stem of the connected word remains unchanged when the preceding word ends with a low tone; e. g. né wurá òdáj, *his master's house*; but when the preceding word (for which, in the following examples, the pronoun ne is substituted) ends in a high tone, the following changes occur:

- | | | | | |
|----|---------|------------------|----------------|-------------------------------|
| a) | the low | tone of the stem | remains low | : asáfo: n'ásáfo. |
| b) | " low | " " " " | becomes high | : basá: ne bása. |
| c) | " high | " " " " | becomes low | : esé: né sè. |
| d) | " high | " " " " | becomes middle | : òhéne: né héne. |
| e) | " high | " " " " | remains high | after nouns & pronouns: òhéne |
- ba; òbá: ne bá;
becomes middle after verbs: onní bá, *he has no child*; also after verbal nouns and ehéna; e. g. oyerá-bá, *son of perdition*; héna bá? *whose son?* — Gr. § 40. 47 ff.

Note: The 'Connected Form' in the Dictionary. Of the words whose first high-toned stem-syllable does not become middle as in òhéne: né héne; obóntó: né bóntó, &c., the connected form is given in brackets after the 'leading words'; as [n'ágyà] or [ne náj] &c.; sometimes, however, the tones are marked in the added phrases.

D. Other Changes of Tone.

1. The high tone of nouns often becomes low

- a) by connection with certain (chiefly, high-toned) adjectives; as onipa pá, nsu krón-kronj; òdáj kesé, òdáj késé (also òdáj kèsé).
- b) in derivatives formed by diminutive or personal suffixes; as dàdè, *iron*: dadewá, *nail*; otúo, *gun*: otufó, *musketeer*. Also in nouns with the palatal suffix; as fitáè, *a fan*; asoèè, 'resting-place'; adesàè, *evening*.
- c) in composition; as òhéne asém: ahensém; nsú: osukóm; (cpd. infinitives) ahō-pópó, *trembling*; mfiásé, *beginning*. — Gr. § 51.

2. The tone of the postpositions **mu** & **so** is low when they are joined to a noun or pronoun in the possessive case ending with high or middle tone; but if those words end with low tone, mu & so have high tone; e. g. òdáj no mù, *in that house*; adáká yi mù, *in this box*; asáfo mù, *in a company*; opój no só, *on that table*, epo só, *on the sea*. — Ase, when adv. (not postposition), sometimes has low tone; as mèda (no) ase, *I thank him*.

3. The high-toned demonstr. pronouns **nó**, **yí** have high or middle tone when the preceding words end with such, and never have low tone; e. g. *duá no*, *that (the) tree*; *obóntó yi*, *this boat*; *asáfo nó (yi) that (this) company*. When **no**, **yi**, or **ní**, **néŋ** (= *né yi*, *né no*) follow after forms like *n'ágyá*, *nè ná* (fr. *agyá*, *ená*), the low-toned final syllable of the latter words becomes middle; as *n'ágyá no*; - *né ná ni*, *this is his mother*; *m'ágyá neŋ*, *that is my father*.

E. Tones of the verbs.

1. With the exception of *yé*, the stem of all *monosyllabic* verbs has *low* tone in the *Present*, whereas the 1st syllable of *disyllabic* verbs is *low* and the 2nd *high*. In the *Continuative*, monosyllables and disyllables are *low-toned* throughout. Also the pronouns prefixed to the verbs in this tense have, apart from the 2nd pers. sing. & pl., *low* tone; e. g. *òtaŋ no*, *he hates him continually*; (*Pres. òtaŋ no*, ... *now & then*). - There are some verbs where the 2nd tone in the *Future*, instead of being on the last vowel, is on the last but one; as *òbèbóa*, *òbétúa*, *òbétúmi*. - For the other Forms & Tenses, cf. 'The Verb', p. XXV seq.

2. Certain *disyllabic* verbs are like *monosyllables* in tone; e. g. *òhòro*, *he washes* (clothes). Others are identical in form, but may have the tones of either monosyllables or disyllables; e. g. *òpàm*, *he joins*; *òpam'*, *he drives away*; *òhyèŋ*, *he blows* (a horn); *òhyeŋ'*, *he enters*.

3. The tones of *trisyllabic* & *polysyllabic* verbs (chiefly reduplications) follow the rule for those of disyllables, the 3rd to the 5th syllables being usually *low*; e. g. *fefére*, *to swing*; *afefèrè abaá*, *he swings a whip*, (*Pret. afefèrèè*); *òferèfère no*, *he fears him* (*Pret. òferèfèrèe*); *wòŋ' aká adodódòdore*, *their debts have grown to a great amount*.

4. When two verbs come together, the adjoining tones are usually *high*; e. g. *òdá kyè*, (for *òda kye*) *he sleeps long*; *migyè midì*, (for *migyè midì*) *I believe*; *wágyè àtiè*, (for *wágyè àtiè*) *he has obeyed*; *oyí amà me*, (for *oyí amà me*) *he pleads for me*. - The low-toned prefix of disyllabic or polysyllabic verbs in the *Perf.*, acquires the high or middle tone of the final vowel of a preceding verb; but in negative forms the tone of the prefix remains unchanged; e. g. *né yàrè agyáè*, (for *agyáè*) *his disease is passed*; *negat. . . ànnyaé*; *yeŋ' núa abà*, (a monosyllable), *our brother has come*; *neg. . . àmmà*. - The objective pronouns **me**, **no** &c., usually have *high* tone when standing between two verbs; as *òde nó baá ofiè*, *he brought him home*.

5. Under certain conditions, e. g. when a verb stands in an adverbial sentence of time, or after the relative particle 'a', its tone or tones undergo changes similar to those of nouns in the 'connected form'. Examples are: *òbaé no*, *mekòè*, *when he came, I went away*; *òrebá yi*, *nà mèrèkò*, *whilst he is coming, I am going away*; *yedò wòŋ à wòdò* (or *wòdò*) *yeŋ*, *we love those that love us*. - Also the position of verbs in clauses made emphatic by 'na', or after verbs like *èfi sè*, *kosí sè*, *esè sè*, *pe sè*, causes the above changes. E. g. *né dèŋ ná àyèra* (or *áyera*)? *which of his things is lost?* *esè sè* (= *séé*) *òkò*, *he must go*. - For full particulars concerning the tones of the Verbs, see Gr. § 95 ff. 247. 263 ff.

Rem. 1. In ordinary literature, the tones are only marked to prevent ambiguity.

2. In the independent form the prefix usually has *low* tone without stress.

3. *Questions* may be expressed by adding an accessory low tone to the last syllable of the verb; as *wón'tèè* (= *wón'tè ànà*)? *do you not hear?*

4. There are local and dialectical variations in tone. - The tone of the *Present* tense is different in the Akem & in the Akuapem dialects; e. g. *misè*, *I say* (Akp.); *mèsèè* (Ak.).

Preface to Second Edition.

The first edition of the present work — commonly called ‘The Tshi Dictionary’ — published in 1881, has for a number of years been out of print. As the book was much in demand by both Europeans and educated natives, it was decided that a new edition should be issued. Unfortunately, financial difficulties, the uncertainty concerning a new script, and an accident which befell the editor, delayed its appearance.

The Dictionary is based on the Akuapem dialect, which was reduced to writing about 1838, and became afterwards the literary form.

He concludes with the wish that also the New Edition may prove a means for a thorough acquisition and understanding of the Tshi language.

Basel, June 1933.

J. Schweizer.