APPENDIX

INTRODUCTION

The Russian originals of the ill simulated MT texts given below have been published in our previous comprehensive report. The predicted translations contain a number of editorial symbols intended to be supplied by the automatic MT system together with the translation in order to aid the reader in choosing the proper alternatives demanded by the context. These symbols and their significance are discussed and exemplified below. The reader will notice in the chart and in the simulated output text that also the space between free forms, in fact the number of spaces, is utilized in this symbolization.

In the abstract representation preceding each of the exemplifications given in the chart, uninterrupted sequences of the letter 'x' stand for the letters of semantic units of the target language. This abstract representation is used only to emphasize the presence of the special editorial symbols.

a) Symbols of Special Significance

1. xxxxx-xx-xxxx, xx-xxxx, xxxxx-xxxxxxx-xxxxxxx

The hyphen in this environment separates the free-form constituents of a single target equivalent.

Examples: what-is-more, in-favor, edge-planing-machines

2. xxxxx/xxxxxxx/xxxxxx
xxxxxxx/xxxxxxx

The single slash separates the alternative choices in a target "string", one of which must be selected on the basis of the context.

Examples: leads/conducts/raises

agitated/insignificant

3. xxxxx-
xxxxxx

-xxxx/xxxxxxx/xxxxxxx

The hyphen in these environments indicates bound target equivalents, or right or left bound alternatives in target "strings".

Examples: anti-, tachy-, -like, visible/important

(See The Role of Space No. 3 for examples of an output sequence representing compounds).

Alternatives within parentheses are to be selected or rejected depending on context; if selected, they are to be read with any material directly preceding or following the parentheses. (But see point No. 5) Grammatical alternatives within parentheses preceding and following a target equivalent are mutually exclusive. The one appropriate to the context is chosen, but even this one may be excluded by the larger context.

Examples: (by/with/at)the-same, changes/is-(ex)changed, (to/for)working-over(time), (of)to(for)surface(s).

5. (xx)xxxxxxx/xxxxxxx
(xx)xxx\(xx)xxxxx(xx)/xxxxxxx

Double slash signifies that the material within parentheses is to be read with the suggestions found only before or after the double slash depending on the location of the parentheses.

Examples: (of)dissolving/solutions (in/are)quick(st)/rather

6. xxxxx) *xxxxxx-xxxxxxx
(xx)xxx) *\(xx)xxxx-xxxxxxx

An asterisk indicates that the immediately preceding target "string" may be automatically eliminated from consideration.

Examples: big(ger) *great-distance
(of)bolt *\(of)bolt-joints


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7. xx/xx/xx/xx/xx/xx/xx--xxx/xxx/xxx

Two hyphens not separated by any space join two separate target "strings" which are to be considered as one target "string" to be eliminated if the next target equivalent is preceded by an asterisk.

Example: on/in/st/for/by/with--iron/ferric

8. (xx)xxxx/xxxx/xx/---

Three hyphens after a slash refer to the section of this manual containing the reference list of unusual or rare target alternatives. These little used alternatives will be found in the manual under the whole entry as found in the output text.

Examples: (to)carry/perform/lay/---


The subscript numbers to the right of certain target alternatives refer to fields and subfields of specialization on the Synoptic Table of Fields of Science found in section 12.5.

Examples: variable/alternating reversable (by/with/as)defects/discontinues/strikes

(b) The Role of Space Between Target Equivalents

1. xxx--xxx (xx)xxxx/xxxx

Three spaces separate individual target "strings".

Examples: the most of important

such (of) conditions

2. xx xxxx/xxxx/xxxx/xx/xxxx

One space divides one target "string" into two groups and indicates that the groups so separated are to be read together after the proper choice from alternatives separated by a slash has been made.

Examples: is included switched-on engaged

(is/are) more frequent thick rapidly

3. xxxxxx-- xxxxxxxxxx

Hyphen and two spaces separate the target equivalents of the members of a compound where the first member is a prefix, i.e., occurs only as a bound form.

Examples: supra clavicular

apt gastric

4. xxxxxx xxxxx

Two spaces separate the target equivalents of the members of a compound whose first member occurs both bound and free.

Examples: Diesel motor

Watt motor

5. xxxxx-- xxxxx

Two spaces, a hyphen and two more spaces separate the constituents of a hyphenated compound if the first element is always bound.

Examples: dark -- red dorso-- ventral

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APPENDIX

THE SIMULATED MACHINE TRANSLATIONS

1. **GOREN METROLOGICHE,** pp. 325-6

2. 50. **REALIZATION (of) STANDARDS.**

2. CONSTRUCTION/DESIGN (of)STANDARD, (of)(to/for)(by/with/as)HIS/ITS/HM/ITS PHYSICAL +PHYSICAL-

- PROPERTIES AND/EVEN/TOO -- METHOD (of)REALIZATION(S) ARE DEFINED/DETERMINED/ASSIGNED (by/-

- with/as)NATURE (of)MAGNITUDE/QUANTITY(S), UNIT/ONE (of)(to/for)(by/with/as)WHICH IS-REPRODUCED,

- AND/EVEN/TOO --- (by/with/as)STATE/POSITION (of)(to/for)(by/with/as)MEASURING +DIMENSIONAL (of) -

- TECHNIQUES/PRACTICE/TECHNOLOGISTS IN/TO/AT/ON/OF/LIKE (of)(to/for)(by/with/as)GIVEN (of)(to/for) -

- AREA/CLASS(S) (of) MEASUREMENTS.

3. **ONLY (of) DEFINITION/DETERMINATION/ATTRIBUTE, **(of) INDEPENDENT (of)UNITS/UNITS (THEY) GIVE/ALLOW

- CERTAIN/SOME PROGRAM (of)ACTIONS/EFFECTS/OPERATIONS FOR (of)REALIZATION(S) (of)STANDARDS,

- IN-AS-MUCH-AS THESE (of) DEFINITION/DETERMINATION/ATTRIBUTE(S) (THEY) CONTAIN/MAINTAIN INDICATION/-

- INSTRUCTION OR/IN/AT/TO/FOR/EY/WITH SUBSTANCE AND/EVEN/TOO --- (of) CONDITION(S), IN/TO/AT/ON/OF/-

- LIKE (of) WHICH IT MUST/SHOULD/OYES (to) BE (FOUND).

4. (of) DEFINITION/DETERMINATION/ATTRIBUTE(S) HOWEVER/THEN/ALSO (of) DERIVATIVE (of) UNITS/UNITS (THEY)-

- PURSUE/PERSECUTE/PROSECUTE, ONLY/SINGULAR AIM/TARGET (to) INSTALL/ESTABLISH/PLACE SIZES/DIMEN-

- SIONS/SCALES/METERS (of)UNITS/UNITS, NOT CONCERNING/TOUCHING (of) METHODS (of)(to/for)(by/with/as) -

- THEIR(S) +THEM (of) PRACTICAL (of) REALIZATION(S).

5. LAST/LATTER IS ATTAINED/REACHED (to/for)(by/with/as) SKILLFUL (by/with/as) CHOICE/SELECTION (of) -

- PRIVATE/PARTICULAR/QUOTIENT$_1$/PARTIAL$_1$ (of) CASE/CHANCE/OCCURRENCE (of) GENERAL/COMMON/TOTAL (of) LAWS

- (of) APPEARANCES/PHENOMENA/SYMPTOMS$_3$, (of) TYING/CONNECTING/KNITTING (of) MAGNITUDE/QUANTITY(S), (of) -

- UNIT/ONE(S) (of) WHICH (THEY) ENTER IN/TO/AT/ON/OF/LIKE DEFINITION/DETERMINATION/ATTRIBUTE(S)

- (of)(to/for)(by/with/as)DERIVATIVE (of)(to/for)(by/with/as)UNIT/ONE(S).

6. SO, FOR EXAMPLE, OUT/FROM (of) DEFINITION/DETERMINATION/ATTRIBUTE(S) (of) INTERNATIONAL (of) AM-

- PIRE (INDEPENDENT UNIT/ONE), HOW/AS/IN (of) FORCE(S)/STRENGTH/EFFORT(S) (of) ELECTRIC(AL) (of) -

- CURRENT/MATING-PLACE$_2$, (of) POSTPOSITION/DISPOSING DEFINITE SEDIMENT/PRECIPITATION (of) SILVER

- AT/WITH/BEFORE/TIME-OF PASSING/THROUGH OVER/THROUGH/WITHIN/EVERY (OTHER) WATER SOLUTION/OPENING

- NITRIC/-NITRO (of)(to/for)(by/with/as) SILVER (of)(to/for)SALT(S), (IS) STRAIGHT/DIRECTLY FLOWS-

- OUT/EMERGES METHOD (of) REALIZATION(S) (of) UNIT/ONE(S) AND/EVEN/TOO --- (of)(to/for)(by/with/as) -

- NERS/IT'S/HER/IT (of) STANDARD - (of) SILVER (of) VOLU-METER, THEN HOW/AS/BUT OUT/FROM (of) -

- DEFINITION/DETERMINATION/ATTRIBUTE(S) (of) ABSOLUTE (of) AMPERE (DERIVATIVE UNIT/ONE), HOW/AS/-

- BUT (of) FORCE(S)/STRENGTH/EFFORT(S) (of) ELECTRIC(AL) (of) CURRENT/MATING-PLACE$_2$, (of) FLOWING/-

- LEAKING ON/BY/ALONG/FOR/IN --- (of) TWO (IS) INFINITE(LY) (to/for)(by/with/as)LONG (to/for) CONDUCTORS (IS) INSIGNIFICANT/WORTHLESS(LY) (of) SMALL (of) CROSS SECTION(S), (of) (to/for)(by/with/as) -

- DEFINED/DETERMINED/ASSIGNED *IN-A DEFINITE-WAY/*(by/with/as) DEFINITE-IMAGE (to/for) LOCATED/ARRANGED/ -

- DISPOSED AND/EVEN/TOO --- (of) CREATING DEFINITE FORCE/STRENGTH/EFFORT (of) INTERACTION(S) BE-

- TWEEN/AMONG (by/with/as) THESE (by/with/as) CONDUCTORS, (of) NO (of) CONCRETE (of) METHOD (of) -
REALIZATION(S) (of) STANDARD NOT FLOWS-OUT/EMERGES, SINCE (IS) INFINITE(LY) LONG \CONDUCTORS, WHICH IN-ADDITION/TO/WARDS FOR THE-SAME (THEY) ENDURED/MAINTAINED/PASSED/AGED2/g3 (WOULD-HAVE) HAVE CURRENT/MATING-PLACE42 (by/with/as) FORCE/STRENGTH/EFFORT IN/TO/AT/ON/OF LIKE ONE/ALONE AMPLIFIER42 AT/WITH/BEFORE/IN-TIME-OF (IS) INSIGNIFICANT/WORTHLESS(LY) SMALL (CROSS) SECTION PRACTICALLY NOT (ARE) REALIZABLE.

7. BUT USING LAW (of) INTERACTION(S) BETWEEN/AMONG (by/with/as) IMMATERIAL/INACTIVE AND/EVEN/TOO---(by/with/as) MOBILE/LIVELY (by/with/as) SPOKES/PLANES/SIGNS42, (to/for) (by/with/as) DEFINED/DETERMINE/ASSIGNED (IN) A DEFINITE WAY (by/with/as) DEFINITE IMAGE (by/with/as) LOCATED/ARRANGED/DISPOSED CONCERNING/(IS) RELATIVE (LY) EACH-OTHER IN/AT/ON--TERRITORIAL--FIELD IN-THE-FIELD--OF--GRAVITY--OF THE-EARTH, AND/EVEN/TOO---BALANCING (by/with/as) LOAD FORCE/STRENGTH/EFFORT (of) INTERACTION(S) BETWEEN/AMONG THEM, IT IS POSSIBLE (to) REALIZE STANDARD (of) ABSOLUTE (of) AMPLIFIERS IN/TO/AT/ON/OF/LIKE (to/for) (UN) FORM (of) WEIGHTS SCAL(E AMPLIFIER SCAL(E)

8. OUT/FROM OF ALL (of) (BEING) REPRESENTED (of) METHODS (of) REALIZATION(S) (of) STANDARD (THEY) ARE CHosen/TAKEN-OUT/GET, (IS) FINAL/LIMITED/OF-COURSE, THOSE, WHICH (THEY) ALLOW (to) SECURE/= PROVIDE THE--VERY--BIGGER (METHODOLOGICAL) ACCURACY (of) REPRODUCTION(S) (of) UNIT/ONE(S).

9. (BEING) REALIZED STANDARDS MUST/SHOULD/OBE (to) POSSESS (by/with/as) UNCHANGEABILITY, (by/with/as) REPRODUCIBILITY AND/EVEN/TOO---(by/with/as) COMPARABILITY.

10. THOSE (of) RELATIONSHIP (of) PROPERTY/NATURE(S) SO (IS) TIGHT/CLOSELY (ARE) IN/CONNECTED/KNITTED ONE-TO-ANOTHER, THAT/WHAT/WHICH (of) (to/for) (by/with/as) THEIR/IS/THAT IT IS POSSIBLE (to) CONSIDER/COUNT (by/with/as) ESSENTIAL (by/with/as) SIGNS, (by/with/as) INHERENT (to/for) EACH (to/for) STANDARD.

11. UNDER/NEAR/LIKE/HEARTH/BOTTOM (by/with/as) UNCHANGEABILITY (of) STANDARD IS IMPLIED (of) (to/for) (by/with/as) HIS/ITS/IT/IT PROPERY/NATURE/RELATIONSHIP (to) HOLD-BACK (by/with/as) CONSTANT/IN-INVARIABLE SIZE/DIMENSION/SCALE/MEASURE, (of) (to/for) (by/with/as) (BEING) REPRODUCED (by/with/as) HIS/IT/IT/IT (to/for) THEM (OF) ONE/UNIT/ONE(S) DURING UNLIMITEDLY (OF) (LONG) INTERVAL (OF) (TO/TO) TIME/TENSE42 BUT AND ALL (OF) CHANGE(S), DEPENDING-ON (OF) DIFFERENT (OF) EXTERNAL/FORTEIR (OF) CONDITIONS (OF) TEMPERATURE(S), (OF) PRESSURE(S), (OF) WEIGHT(S) AND SO-ON/TO OR (OF) (TO) (BY/WITH/AS) INTERNAL (OF) STRUCTURE(S), MUST/SHOULD/OBE (TO) BE (BY/WITH/AS) DEFINITE (BY/WITH/AS) FUNCTIONS (OF) MAGNITUDE/QUANTITY, (OF) ACCESSIBLE (TO) EXACT/EXACTLY (TO) MEASUREMENT.

12. THIS PROPERTY/NATURE/RELATIONSHIP FIRST-OF-ALL SUPPOSES/PROPOSES PROPER CHOICE/ELECTION (OF) MATERIAL FOR (OF) PREPARATION(S) (OF) STANDARDS.

13. LAST/LATTER NOT MUST/SHOULD/OBE (TO) BE SUBJEC TED/EXPOSED (TO) WEAR, (TO) AGING, (OF) (TO) CORROSION AND/EVEN/TOO---(TO) (FOR) (WITH) (WITH) (OTHER) (TO) CHANGES AT/WITH/BEFORE/IN-TIME-OF (OF) (TO) (FOR) (WITH) (WITH) THEIR/IS/THAT APPLICATION OR PROLONGED KEEPING.

14. FROM/OF/OF MATERIAL IS REQUIRED STABILITY, STABILITY, SOMETIMES EXCEPTIONAL/EXCLUSIVE PURITY CLEANLINESS.

15. ALL CAUSING/CALLING DOUBT MATERIALS MUST/SHOULD/OBE (TO) BE (ARE) EXCLUDED.

16. ACHIEVEMENT OF THESE (OF) CONDITIONS PRESENTS/REPRESENTS (IS) EXTRAORDINARY DIFFICULT PROBLEM, ON/IN/AT/TO/FOR/BY WITH RESOLUTION/DECISION DERIVATION (OF) (TO) (BY) (WITH) (AS) WHICH (THEY) WERE SPENT CONSIDERABLE SIGNIFICANT (OF) FORCE(S)/STRENGTH/EFFORT(S)/QUANTITY AND/EVEN/TOO NOT ALWAYS FROM/ABOUT (TO) (FOR) (WITH) (AS) PROPER (BY/WITH/AS) SUCCESS.

17. MUCH/ANY (OF) STRESSES/EFFORTS, FOR EXAMPLE, THERE WAS (IS) SPENT ON/IN/AT/TO/FOR/BY WITH FINDING (OF) FUSION/FLUID42/ALLOY42, WHICH SECURED/PROVIDED (WOULD-HAVE) WOULD (TO) STANDARDS (OF) ELECTRICITY (OF) RESISTANCE(S) (OF) (TO) (FOR) (WITH) (AS) THEIR/IS/THAT CONSTANT; (ARE) ATTAINED/REACHED BIGGER SUCCESS/PROGRESS IN/TO/AT/ON/OF LIKE PREPARATION (OF) MANUFACTURE, (OF) POSSESSING (IS) EXTRAORDINARY (BY/WITH/AS) VALUE (BY/WITH/AS) MEDICAL/NONMEDICAL (OF) (WITH) (AS) PROPERTIES/NATURES, BUT NEVER THE LESS ALL NOT (OF) POSSESSING (WITH/AS) CONSTANT IN/TO/AT/ON/OF/
LIKE (of/to/for) (by/with/as) THAT (of/to/for) DEGREE/POWER(S), WHICH IS-REQUIRED (by/with/as)-CONTEMPORARY (by/with/as) METHODS (of) EXACT/PRICISE (of) ELECTRIC(AL) (of) MEASUREMENTS, THEREFORE SEARCH/RAIDS (of) NEW (of) FUSIONS/PILOTS_5 (ALL) STILL/YET/MORE/ALSO (THEY) CONTINUE.

10. FOR (of) REPLACEMENT(S) IS (DEAR/LY) (of/to/for) (by/with/as) STANDING/COSTING/BEING-WORTH (of) PLATINUM (ARE) CREATED IRON- NICKEL FUSIONS/PILOTS_5 (INVAR AND EVEN/TOO)----

OTHER), ALSO POSSESSING VERY (by/with/as) VALUABLE (by/with/as) METROLOGICAL (by/with/as) PROPERTIES/NATURES, HOWEVER MANUFACTURED/PREPARED OUT/FROM THEM LINEAR/LINEAR (of) MEASURE(S)/="-

MERS (THEY) CHANGE/EXTRACT OWN LENGTH WITH/FROM ABOUT (by/with/as) CURRENT/COARSE (of/to/for)

TIME/TENSE_52, THAT/WHAT WHICH MAKES/DOES (of/to/for) (by/with/as) THEIR(S)/THEM (by/with/as) UNSUITABLE FOR (of) PREPARATION/Manufacture(S) (of) PRIMARY/INITIAL (of) STANDARDS.

2 -- ОСНОВЫ МАТЕМАТИЧЕСКОГО АНАЛИЗА, p. 140

1. DIFFERENTIATION (of) FUNCTIONS (of) (to/for) (by/with/as) ONE/ALONE (of) (to/for) (by/with/as) VARIABLE/-

ALTERNATING_54/REVERSIBLE
1

2. DERIVATIVE AND/EVEN/TOO/--- (of) (to/for) (by/with/as) THEIR/ITS/HER/IT CALCULATION.

3. PROBLEM ABOUT/AGAINST/WITH/Calculation (of) (to/for) SPEED(S) (of) MOVING-POINT.

4. GOING-OVER/CHANGING TO/WARD/FOR (to/for) EXPOSITION/ACCOUNT (of) BASES/WARPS_56/STRENGTH_52 (DIF-

FERENTIAL AND/EVEN/TOO/--- (of) INTEGRAL * (of) INTEGRAL-_CALCULUS, WE (WE) TURN/CONVERT/REDUCE_3 ATTENTION (OF) READER ON IN/AT/TO/FOR/IN/YET THE FACT/THAT/THAT-MUCH (OF) IDEA(S) (OF) THIS (OF) CALCULATION/CALCULUS(S) WERE CONCEIVED STILL/YET/MORE/ALSO IN/AT/ON/OFF/LIKE XVII CENTURY/

EYELID, THAT IS LONG-BEFORE (OF) THOSE (OF) THIN/FINE (OF) THEORIES, WHICH WE STUDIED IN/-

TO/AT/ON/OFF (OF) PRECEDING CHAPTER(S)/HEAD.

5. ONLY/AS-BOOK-AS IN/TO/AT/ON/OFF/LIKE (of) (to/for) (by/with/as) CONCLUDING (to/for) CHAPTER/HEAD (OF)

THIS (OF) VOLUME WE (WE) SHALL(ES) (TO) HAVE POSSIBILITY (TO) CONCERN/TOUCH (OF) MOST-IMPORTANT
(OF) MOMENTS/FEATURES (OF) (TO/for) PRE-HISTORY (OF) MATHEMATICAL (OF) ANALYSIS AND/EVEN/TOO/---
(OF) CHARACTERIZE (OF) SERVICE(S) (OF) TWO (OF) GREAT (OF) MATHEMATICANS HYTONA AND/EVEN/TOO/---

LEYBLINGA, (OF) HAVING-CONCLUDED (OF) WORK(S) (OF) OWN (OF) PREDECESSORS (by/with/as) CREATION (IS)

REAL/ACTIVELY (OF) NEW (OF) CALCULATION/CALCULUS(S).

6. IN/TO/AT/ON/OFF/LIKE OUR EXPOSITION/ACCOUNT WE (WE) SHALL(ES) (TO) BE-GUIDED ALREADY/((IS/ARE)

MORE-NARROW(LY) (by/with/as) CONTEMPORARY (by/with/as) REQUIREMENTS/REQUESTS TO/WARD/FOR (OF) (TO/for)

STRICTNESS/SEVERITY(S), BUT AND NOT (by/with/as) HISTORY/STORY (OF) QUESTION.

7. HOWEVER, IN-THE-CAPACITY (OF) INTRODUCTION IN/TO/AT/ON/OFF/LIKE DIFFERENTIAL *DIFFERENTIAL-CALCULUS,
WE (LET-US) (WE-SHALL) CONSIDER/OBSERVE IN/TO/AT/ON/OFF/LIKE PRESENT-REAL NUMBER/TRAIC

-- PROBLEM ABOUT/AGAINST/WITH (OF) (TO/for) SPEED(S), BUT AND IN/TO/AT/ON/OFF/LIKE CLOSEST NUMBER/TRAIC

HISTORICALLY (THEY) TURNED-OUT-TO-BE (by/with/as) TIED/CONNECTED/KNITTED WITH/FROM/ABOUT (by/with/-

AS) FORMATION (OF) BASIC (OF) CONCEPT/IDEA(S) (OF) DIFFERENTIAL *DIFFERENTIAL-CALCULUS, SUBSEQUENTLY
(OF) HAVING-GOTTEN NAME (OF) (by/with/as) DERIVATIVE.

8. (LET-US) (WE-SHALL) BEGIN WITH/FRONT/ABOUT (OF) PRIVATE/PARTICULAR/QUOTIENT_2/FRAGMENT_2 (OF)
EXAMPLE, NAMELY, JUST/EXACTLY, (LET-US) (WE-SHALL) CONSIDER/OBSERVE FREE FALL/INCIDENCE_2/DIP_3 (IN/TO/AT/-

ON/OFF/LIKE (TO/for) EMPIMISE/VACUUM/CAVITY/BLOWHOLE_5 -- IN-ORDER THAT NOT (TO) CONSIDER/COUNT/TRAIC

(OF) RESISTANCE(S) (OF) AIR (OF) (TO/for) (BY/with/as) DIFFICULT/HEAVY/SERIOUS (OF) TO/for

(by/with/as) MATERIAL (OF) POINT/PERIOD/SHARPENING(S).

9. IF TIME/TENSE_52 T (SEC.) IS-COUNTED FROM/OFF/OF BEGAN ((OF) BEGINNING/PRINCIPLES) (OF)

FALL/INCIDENCE_2/DIP_3(S), THAT/THEN/OR PASSED BEHIND/BETWEEN/OFF/AFTEr/IN/AT/--- THIS TIME/TENSE_52
WAY/PASSAGE/JOURNAL/TRAIC_52 t (d), ON/YET/ALONG/FOR/IN/--- (OF) (TO/for) (BY/with/as) (WILL) KNOWN/="-
ER-LESS (of) FORMER; THIS WILL BE ENOUGH, FOR EXAMPLE, WHEN (of) (to/or) (by/with/as) VARIABLE-/ALTERNATING_S1/REVERSIBLE_S1* (of) VARIABLE QUANTITY DIMINISHES/LEAVES.

9. (to/or) (by/with/as) ANALOGOUS *ANALOGICALLY QUANTITY SIGNS INDICATES INCREMENT \( \Delta x \) SIGNIFIES INCREMENT \( \Delta y \), \( \Delta z \) SIGNIFIES INCREMENT \( \Delta f(x) \) SIGNIFIES INCREMENT (of) (to/or) FUNCTION(S) \( f(x) \) AND SO-FOORTH.

10. IF IN/TO/AT/ON/OF/LIKE EQUATION/EQUALITY EQUATION \( y = f(x) \) NON-DEPENDENT VARIABLE/ALTERNATING_S1/REVERSIBLE_S1 \( x \) (WILL) GET(S) INCREMENT \( \Delta x \), THAT/THEN/OR UNDER/HEAR/LIKE/BOTTOM \( \Delta y \) ALWAYS (THAT) UNDERSTAND CORRESPONDING INCREMENT (of) (to/or) FUNCTION(S) \( f(x) \), THAT IS INCREMENT (of) DEPENDENT (of) VARIABLE/ALTERNATING_S1/REVERSIBLE_S1 \( \Delta y \).

11. IT IS NECESSARY/FOLLOWS INCREMENT \( \Delta y \) (TO) COUNT ALWAYS FROM/OFF/OR (OF) DEFINITE (OF) INITIAL/ELEMENTARY *INITIAL VALUE \( y \), (OF) CORRESPONDING (TO/OR) THAT/VOLUME (IS) ARBITRARY(LY) (TO/OR) TAKEN (TO/OR) INITIAL/ELEMENTARY * (TO/OR) INITIAL VALUE \( x \), FROM/OFF/OR (OF) WHICH IS COUNTED INCREMENT \( \Delta x \).

12. (LET-us) (WE) SHALL CONSIDER/OBSERVE, FOR EXAMPLE, FUNCTION \( y = x^2 \).

13. HAVING-TAKEN BEHIND/BEYOND FOR AFTER/IN/AT/--- INITIAL/ELEMENTARY *INITIAL VALUE \( x = 10 \), (WE) GET INITIAL/ELEMENTARY *INITIAL VALUE \( y = 100 \).

14. LET/ALTHOUGH \( x \) (IS) INCREASED/MAGNIFIED \( (UP)/TO/BEFORE \( x = 12 \), THAT IS \( \Delta x = 2 \); THEN \( y \) INCREASED \( (UP)/TO/BEFORE \( y = 144 \), (THAT) MEANS \( \Delta y = 144 - 100 = 44 \).

15. LET/ALTHOUGH \( x \) (IS) DECREASED \( (UP)/TO/BEFORE \( x = 9 \), THAT IS \( \Delta x = -1 \); THEN DIMINISHED/LEFT \( (UP)/TO/BEFORE \( y = 81 \), CONSEQUENTLY, \( \Delta y = 81 - 100 = -19 \).

16. IN GENERAL, IF FUNCTION \( y = f(x) \) INCREASING, HOW/AS/BUT, FOR EXAMPLE, \( y(x) = x^2 \) IN/TO/AT/ON/OF/LIKE INTERVAL \( 0 < x < \infty \), THEN/THAT/OR (IT) (IS) CLEAR(LY), THAT/THAT/SOMETHING IF \( \Delta x \) (IS) POSITIVE(LY), THAT/THAT/OR AND/EVEN TOO/--- \( \Delta y \) WILL/BE ENOUGH (TO/OR) (BY/WITH/AS) POSITIVE, AND/EVEN TOO/--- IF \( \Delta x \) (IS) NEGATIVE(LY) THAT/THAT/OR AND/EVEN TOO/--- \( \Delta y \) ALSO WILL/BE ENOUGH (TO/OR) (BY/WITH/AS) NEGATIVE.

17. (THAT) MEANS, BOTH (OF) INCREMENT(S), \( \Delta x \) AND/EVEN TOO/--- \( \Delta y \), IN THIS CASE (THAT) HAVE ALWAYS EQUAL/IDENTICAL SIGNS.

18. IF HOWEVER/THEN ALSO FUNCTION \( y = f(x) \) DIMINISHING/LEAVING, THEN/THAT/OR \( \Delta x \) ANSWERS \( \Delta y \) (IT) IS EVIDENT(LY), (IS) NEGATIVE(LY) \( \Delta y \), BECAUSE NEW SIGNIFICANCE VALUE \( \Delta x \) (IS) SMALLER/LESS (OF) FORMER, \( \Delta y \) ANSWERS ALREADY/(IS) ARE MORE NARROW(LY) POSITIVE \( \Delta y \), FOR NOW NEW SIGNIFICANCE VALUE \( \Delta x \) (OF) TO/FOR FUNCTION(S) MORE/(IS) ARE BIGGER (OF) FORMER.

19. (THAT) MEANS, \( \Delta x \) AND/EVEN TOO/--- \( \Delta y \) IN THIS CASE ALWAYS (THAT) WILL BE (OF) OPPOSITE/OP Posed (OF) SIGNS.

20. \( \Delta x \) -- ТЕОРИЯ ОШИБОК И СПОСОБ НАИМЕНЬШИХ КВАДРАТОВ, гл. 25-26.

1. (OF) ERROR(S) (OF) LOGARITHMS (OF) TRIGONOMETRIC (OF) FUNCTIONS.

2. IF AT/WITH/BEFORE/IN-TIME OF CALCULATION \( M_1 \) ARISES QUESTION ABOUT AGAINST/WITH FINDING LOCATION (OF) ERROR(S) (OF) LOGARITHMS (OF) (TO/OR) TRIGONOMETRIC FUNCTION, THAT/THAT/OR (IT) IS NECESSARY/OVER (TO/PROCEDURE) OUT/OF (OF) FOLLOWING (OF) CONSIDERATIONS: TABULAR (OF) (TO/OR) VARIETY/DIFFERENCE, (OF) LOGARITHMS (OF) TRIGONOMETRIC (OF) FUNCTIONS MUST/SHOULD/BE/BE CONSIDERED/OBSERVED HOW/AS/BUT (OF) (OF) ERROR(S) (OF) LOGARITHMS (OF) TRIGONOMETRIC (OF) FUNCTIONS, CAUSED/CALLED (BY/WITH/AS) ERRORS IN/TOWARDS/AT/ON/OF/LIKE ONE/ALONE UNIT/ONE IN/TOWARDS/AT/ON/OF/LIKE ARGUMENTS (IN/TOWARDS/AT/ON/OF/LIKE 1° IN/TOWARDS/AT/ON/OF/LIKE (OF) FIVE-UNIT TABLES (OF) LOGARITHMS FIVE-UNIT AND/EVEN TOO/--- IN/TOWARDS/AT/ON/OF/LIKE 1° (OF) SIX-UNIT AND/EVEN TOO/--- VEGA).

3. THEREFORE, KNOWING ERROR (OF) ARGUMENT, (IT) IS LIGHT/EASY (LY) (TO) CALCULATE ERROR (OF) LOGA-
THEM (of) (to/for) TRIGONOMETRIC-FUNCTION ON/BY/ALONG/TO/OF/OH/--- (to/for) FORMULA: \[ M_{1g} \text{ TRIGNON.} \]

(of) (to/for) FUNCTION(S) = \( M \) (of) (ARGUMENT \( d_{1g} \) TRIGNON, (of) (to/for) FUNCTION(S), WHEREIN (of) ERROR(S) (of) ARGUMENTS MUST/SHOULD/ONE (to) BE (ARE) EXPRESSED IN/TO/AT/ON/OF/LIKE UNITS/ONES, (of) EQUAL (to) INTERVAL (of) TABLES (of) LOGARITHMS (of) TRIGONOMETRIC (of) FUNCTIONS (IN/TO/-
AT/ON/OF/LIKE MINUTES AT/WHICH/BEFORE/IN-TIME-OF USE/USUFRUCT \( S \) (by/with/as) FIVE-UNIT (by/with/as) SIX-UNIT AND/EVEN/TOO/--- (by/with/as) SEVEN-UNIT (by/with/as) TABLES ) THAT-IS

\[ M_{1g} \text{ TRIGNON.} \]

(of) (to/for) FUNCTION(S) \[ M_{1g} \text{ TRIGNON.} \]

\[ \frac{\log_{10} M_{1g}}{\log_{10} \text{ Min.}} \]

\[ \frac{\log_{10} M_{1g}}{\log_{10} \text{ Decease} \text{sec}} \]

4. (of) ERROR(S): IF FUNCTION, ERROR (of) (to/for) (by/with/as) WHICH US INTERESTS (AS) PRESENTS/

IMAGINES *REPRESENTS SUM OR VARIETY/DIFFERENCE \( \text{X} \) (of) SEVERAL (of) COMPONENTS (BEING) MADE-UP/

TAKEN/ADDED \( \text{X} \), EACH OUT/FROM (of) WHICH IS/APPEARS (by/with/as) FUNCTION (of) COMPLEX/COMPOUND

OF VIEW/SHAPE/SPECIES/ASPECT \( \text{X} \), THAT/THEN/OR, BEING-GUIDED (to/for) (by/with/as) LOGARITHMIC (by/

with/as) METHOD, (ONE) MUST (to) CALCULATE MIDDLE/AVERAGE/MEAN \( \text{X} \)/NEUTRAL \( \text{X} \)/NEUTER \( \text{X} \) (ERROR(S) (of)

SEPARATE/INDIVIDUAL (of) COMPONENTS/BEING) MADE-UP/TAKEN/ADDED AND/EVEN/TOO/--- (TO/WARD) FOR HIM/

HIM/THEM (to) USE THEOREM AGAINST/AGAIN WITH (of) (to/for) (by/with/as) MIDDLE/AVERAGE/MEAN \( \text{X} \)/NEUTRAL \( \text{X} \)/

NEUTER \( \text{X} \) (to/for) ERROR (of) SUM(S) OR VARIETY/DIFFERENCE \( \text{X} \).

5. TABLED (of) (to/for) VARIETY/DIFFERENCE \( \text{X} \) (of) NATURAL-IN-KIND *OF(NATURAL-VALUES (of) TRIGONOMETRIC

(of) FUNCTIONS MUST/SHOULD/OBE (to) BE CONSIDERED/RECOGNIZED HOW/AS/ BUT (of) ERROR(S) (OF) NATURAL/

IN-KIND *OF(NATURAL-VALUES (of) TRIGONOMETRIC (of) FUNCTIONS, CAUSED/CALLED (by/with/as) ERRORS IN/TO/AT/ON/OF/LIKE ONE/ALONE UNIT/ONE IN/TO/AT/ON/OF/LIKE ARGUMENTS IN/TO/AT/ON/OF/LIKE 10° [IN/TO/AT/ON/OF/LIKE (of) SIX-UNIT (PETERSA) AND/EVEN/TOO/--- (OF) SEVEN-UNIT (FOR/DAHA) TABLES (OF) TRIGONOMETRIC (OF) FUNCTIONS).

6. THEREFORE, KNOWING ERROR (of) ARGUMENT, (IT) IS/LIGHT/EASY(LY) (to) CALCULATE ERROR (OF

NATURAL-IN-KIND *OF(NATURAL-VALUES (OF) TRIGONOMETRIC-FUNCTION ON/BY/ALONG/TO/IN/--- (TO/for) FORMULA, \( M \) TRIGNON, (OF) (TO/for) FUNCTION(S) \( M \) (OF) ARGUMENT \( d \) TRIGNON, (OF) (TO/for) FUNCTION(S), WHEREIN (OF) ERROR(S) (OF) ARGUMENTS MUST/SHOULD/OBE (TO) BE (ARE) EXPRESSED IN/TO/AT/ON/OF/LIKE UNITS/ONES, (OF) EQUAL (TO) INTERVAL (OF) TABLES (OF) TRIGONOMETRIC (OF) FUNCTIONS

(IN/TO/AT/ON/OF/LIKE DECA- -SECONDS AT/WHICH/BEFORE/IN-TIME-OF (OF) SIX-UNIT AND/EVEN/TOO/--- (OF) SEVEN-UNIT TABLES).

7. RELATIVE (OF) ERROR(S).

8. RELATIVE (OF) ERROR(S) ALWAYS (THEY) ARE-EXPRESSED/EXPRESS-SELVES (BY/WITH/AS) DIVERTED/ABSTRACTED

*(BY/with/as) ABSTRACT-NUMBERS, WHEREIN THESE (OF) NUMBER/DATE(S) (IS) COMMON(LY) (THEY) ARE PRESENTED/REPRESENTED//(THEY) SEEN-TO-BE (BY/with/as) SHOT/FRACTION/TRILL/ROLL WITH/FROM/ABOUT (BY/with/as) NUMERATOR UNIT/ONE.

9. VERY (IS) RARE/FREQUENT/SHOCK/RAPI(LY) QUALITY (OF) (TO/FOR) (BY/with/as) ONE-ON-ANOTHER (OF) MAGNITUDE-

QUANTITY(S) (IS/ARE) MORE FULL/STOUT/COMpletely (IS) CHARACTERIZED NAMELY/JUST/EXACTLY (OF) (TO/for)

(BY/with/as) RELATIVE-ERROR, (OF) (TO/for) (BY/with/as) EQUAL (TO/for) PRIVATE-PARTICULAR/QUOTIENT/FRAC(TION/S) (OF) (TO/for) (BY/with/as) ABSOLUTE (FOR/EXAMPLE, (OF) (TO/for) (BY/with/as) MIDDLE/AVERAGE/MEAN \( \text{X} \)/NEUTRAL \( \text{X} \)/NEUTER \( \text{X} \) (OF) ERROR(S) (OF) (TO/for)

(BY/with/as) MEASURED (OF) MAGNITUDE/QUANTITY(S), ON/IN/AT/TO/OF/BY/WITH NUMERICAL SIGNIFI-

CANCE/VOLUME (OF) (TO/for) (BY/with/as) SELF/THE VERY/MOST (OF) MAGNITUDE/QUANTITY(S), WHEREIN DIMEN-

SION/MAGNITUDE (OF) NUMERATOR AND/EVEN/TOO/--- (OF) DENOMINATOR MUST/SHOULD/OBE(S) (TO) BE (OF)
(to/for)(by/with/as) EQUA/L IDENTICAL,

10. (LET-US) WE-SMALL/NOTE THAT/WAT WHICH AT/WITH/BF/BEFORE/IN-TIME-OF (to/for) APPRAISAL (of)(to/for) ACCURACY (of) CORNER/ANGLAR *OF(ANGULAR-MEASUREMENTS NOT (IT) (IS) TAKEN/RECEIVED (to) CALCULATE RELATIVE (OF) ERROR(S) (OF) CORNERS/ANGLES, SINCE ERROR (OF) MEASUREMENT(S) (OF) CORNER/ANGLE NOT DEPENDS-ON (QUANTITY) (OF) CORNER/ANGLE.

11. (IS) CUSTOMARLY/ORDINARY (LY) (IS) TAKEN/RECEIVED (to) DIVIDE MAGNITUDE/QUANTITY (OF) (TO/FOR) (BY/WITH/AS) CORNER/ANGLAR (OF) ERROR(S) ON/IN/AT/TO/POS/BY/WITH MAGNITUDE/QUANTITY (OF) CONSTANT/PERMANENT/-DIRECT (OF) CORNER/ANGLE, (OF) EQUAL (TO) RADIAN, AND/EVEN/TOO/--- (TO) GET IN-THE-WAY CORNER/ANGLAR ERROR IN-THE-FOIL/IN/AT/ON VIEW/SPECIES_A/ASPECT_82 (OF) DIVERTED/ABSTRACTED *(OF) ABSTRACT-NUMBER, WHICH SHOWS/POINTS, IN/AT/ON/OF LIKE HOW/MUCH/ANY ONCE/TIME(S) CORNER/-ANGLAR ERROR (IS/=) SMALLER/LESS (OF) RADIAN.

12. SUCH (RE) PRESENTATION/IDEA GIVES/ALLOWS EXPRESSION (OF)(TO/FOR) (BY/WITH/AS) CORNER/ANGLAR (OF) ERROR(S) IN/TO/AT/ON/OF LIKE RADIAN.

13. CORNER/ANGLAR ERROR, EXPRESSED IN/TO/AT/ON/OF LIKE RADIAN, CAN (TO) BE CONSIDERED/OBSERVED HOW/AS/ BUT CROSS/TRANSVERSE RELATIVE ERROR, WHICH NOT DEPENDS-ON (OF) LENGTH(S) (OF) (TO/-FOR) LINE(S).

14. THEN RELATIVE ERROR (OF) LENGTH(S) (OF) (TO/FOR) LINE(S) MUST/SHOULD/OBE(S) (TO) BE (IS) NAMED/-CALLED (OF) (TO/FOR) (BY/WITH/AS) LONGITUDINAL/LONGITUDALIZE (OF)(TO/FOR) (BY/WITH/AS) RELATIVE *(OF) AS RELATIVE-ERROR.

15. CALCULATION (OF) LONGITUDINAL/LONGITUDALIZE AND/EVEN/TOO/--- (OF) CROSS/TRANSVERSE (OF) RELATIVE (OF) ERRORS GIVES/ALLOWS POSSIBILITY (TO) COMPARE ACCURACY (OF) SINGLE (OF) CORNER/ANGLAR AND;/EVEN/TOO/--- (OF) LINEAR/LINE_89 (OF) LINEAR-MEASUREMENTS FROM-THE-POINT-OF-VIEW (OF) MAGNITUDE/-QUANTITY(S) (OF) ERROR(S) (OF) POSITION/CONDITION/THESIS/REGULATION(S) (OF) (TO/FOR) (BY/WITH/AS) FINAL/~FINITE (OF) POINT/PERIOD/SHARPENING(S) (OF) (TO/FOR) LINE(S).

5 -- ТЕОРИЯ ДВИЖЕНИЯ ЖИДКОСТЕЙ И ГАЗОВ В НЕДЕФОРМИРУЕМОЙ ПОРИСТОЙ СРЕДЕ, РР. 145-6

1. FLAT FLAT -- ESTABLISHING/INSTALLING/PLACING *FLAT-STEADY FILTRATION (OF)(TO/FOR) (BY/WITH/AS) -- DIFFICULTY/HEAVY/SERIOUS (OF)(TO/FOR) (BY/WITH/AS) INCOMPARABLE (OF)(TO/FOR) LIQUID(S).

2. §35. CONCEPT/IDEA ABOUT/AGAINST/WITH (OF)(TO/FOR) FLAT FILTRATION.

3. FILTRATION IS CALLED/NAMED (OF)(TO/FOR) (BY/WITH/AS) FLAT, IF ALL (OF) PARTICLE(S) (OF)(TO/FOR) (BY/WITH/AS) FILTERING (OF)(TO/FOR) LIQUID(S) (THEY) ARE MOVED/Shifted IN/TO/AT/ON/OF LIKE PLANES/-FLATNESS(S), (OF) PARALLEL (OF)(TO/FOR) (BY/WITH/AS) CERTAIN/SOME (OF)(TO/FOR) (BY/WITH/AS) IMMOBILE/IN-ACTIVE (OF)(TO/FOR) PLANES/FLATNESS(S), WHEREIN CHARACTER (OF) MOTION/MOVEMENT(S) (OF) PARTICLES (OF)(TO/FOR) LIQUID(S), (OF) BELONGING (OF)(TO/FOR) (BY/WITH/AS) DIRECT/Straight/LINE/RIGHT_129, (OF) (TO/FOR) (BY/WITH/AS) PERPENDICULAR TO/WARD/FOR (OF)(TO/FOR) (BY/WITH/AS) THIS (OF)(TO/FOR) PLANE/-FLATNESS(S), (IS) EQUAL/IDENTICAL.

4. THEREFORE AT/WITH/BF/BEFORE/IN-TIME-OF STUDY (OF)(TO/FOR) (BY/WITH/AS) FLAT *(OF)(TO/FOR) PLANE-STEADY INFILTRATION (IT) IS SUFFICIENT (OF)(TO/FOR) BE LIMITED/LIMIT-SELF (BY/WITH/AS) CONSIDERATION (OF) MOTION/MOVEMENT(S) (OF)(TO/FOR) LIQUID(S) IN/TO/AT/ON/OF LIKE (OF)(TO/FOR) (BY/WITH/AS) ONE/ALL OUT-/FROM (OF) SHOWN/POINTED (IS/ARE) HIGHER/TALLER/BEFORE (OF) PLANES/FLATNESS(S), (OF)(TO/FOR) (BY/WITH/AS) (BEING) CALLED/NAMED LAYER-ON-IN-FURTHER (BY/WITH/AS) PLANES/FLATNESS (OF)(TO/FOR) FILTRATION(S).

5. THEN (BEING) CONSIDERED/OBSERVED AREA/AREA LAST (OF)(TO/FOR) FILTRATION(S) WILL/BE //ENOUGH (OF) (TO/FOR) (BY/WITH/AS) FLAT.

6. SPEED (OF)(TO/FOR) FILTRATION(S) IN/TO/AT/ON/OF LIKE (OF)(TO/FOR) (BY/WITH/AS) ANY (TO/FOR) POINT/-PERIOD/SHARPENING (OF)(TO/FOR) AREA/LAST (OF)(TO/FOR) FILTRATION(S) WILL/BE //ENOUGH (TO) LIE IN/TO/AT/ON/OF LIKE (OF)(TO/FOR) PLANE/FLATNESS(S) (OF)(TO/FOR) FILTRATION(S) AND/EVEN/TOO/---, CON-
SEQUENTLY, WILL BE ENOUGH (to) HAVE ONLY TWO MAKING-UP/PUTTING/COMPONENTS ON/AT/ALONG/FOR/IN (to/for) AXES/AXLES (of) COORDINATES (of) (to/for) (by/with/as) THIS (of) (to/for) PLANE/FLATNESS.

7. SHOWN/POINTED MAKING-UP/PUTTING/COMPONENTS, HOW/AS/OUT AND/EVEN/TOO/--- OTHER (of) CHARACTERISTIC DESCRIPTION/RATING PERFORMANCE FILTERATION (of) TORRENT/STREAM/FLOW (PRESSURE, PRECISE ADDITIONAL) THEY WILL BE (by/with/as) FUNCTIONS (of) TWO (of) COORDINATES (of) POINTS/PERIODS/SPECIALS (of) (to/for) AREA/OBLAST (of) (to/for) FILTERATION (S) AND/EVEN/TOO/--- (of) (to/for) TIME/TENSE 1. LAST/LATTER-- IN/TO/AT/ON/OF/LIKE CASE/CHANCE/OCCURRENCE (of) (to/for) (by/with/as) NON-STEADY (of) (to/for) FILTERATION (S).

8. IN/TO/AT/ON/OF/LIKE (of) (to/for) (by/with/as) PRESENT/REAL (to/for) CHAPTER/HEAD IS CONSIDERED/OBSERVED ONE/ALONE VIEW/SHAPE/SPECIES Aspect FILTERATION (of) (to/for) (by/with/as) PLANE FLAT -- ESTABLISHING/INSTALLING/PLACING PLANE/FLATNESS (of) (to/for) (by/with/as) DIFFICULT/HEAVY/SEVERE (of) (to/for) INCOMPRESSIBLE NON-CONTRACTIBLE (of) (to/for) LIQUID (of) PLANE/FLATNESS (of) (to/for) FILTERATION (S) WILL BE (of) (to/for) (by/with/as) VERTICAL.

9. (of) (to/for) (by/with/as) ANY OTHER VIEW/SHAPE/SPECIES Aspect FILTERATION (of) (to/for) (by/with/as) PLANE FLAT -- ESTABLISHING/INSTALLING/PLACING PLANE/FLATNESS (of) (to/for) (by/with/as) DIFFICULT/HEAVY/SEVERE (of) (to/for) (by/with/as) INCOMPRESSIBLE NON-CONTRACTIBLE (of) (to/for) LIQUID (S) IN/TO/AT/ON/OF/LIKE CASE/CHANCE/OCCURRENCE (of) (to/for) (by/with/as) VERTICAL (of) (to/for) PLANE/FLATNESS (of) (to/for) FILTERATION (S) HAS VERY BIG SIGNIFICANCE VALUE 1 IN/TO/AT/ON/OF/LIKE (of) (to/for) HYDRODYNAMICS.

10. IN/AT/ON MANY IN-MANY-CASES (of) (to/for) FILTERATION (S) IN/TO/AT/ON/OF/LIKE FOUNDATIONS BASES (of) MASSIVE (of) HYDROTECHNICAL (of) BUILDINGS, (of) (to/for) FILTERATION (S) OVER/IN/THROUGH/IN/EVERY OTHER BODY AND/EVEN/TOO/--- FOUNDATION BASE (of) EARTH (of) DANS, (of) (to/for) FILTERATION (S) OUT/OF FROM (of) RIVERS, (of) CANALS/CHANNELS/DUCTS/BASEM (of) AND/EVEN/TOO/--- (of) WATER RESERVOIRS, (of) (to/for) FILTERATION (S) TO/WARD/FOR (of) (to/for) (by/with/as) BUILDING/CONSTRUCTION (to/for) PITS AND/EVEN/TOO/--- (of) (to/for) (by/with/as) HORIZONTAL (to/for) DRAINS AND/SO-FOURTH FILTERATION TORRENT/STREAM/FLOW CAN TO BE (IS) TAKEN/RECEIVED (of) (to/for) (by/with/as) FLAT.

12. EVEN IN THOSE CASES, WHEN FILTERATION TORRENT/STREAM/FLOW HAS SPATIAL CHARACTER, BY/WAY/--- (by/with/as) WAY/PATH/JOURNEY/TRACK (of) (to/for) (by/with/as) REASONABLE (of) (to/for) SCHEMATIZATION (S), (of) (to/for) (by/with/as) BRINGING/CITING/REDUCING TO/WARD/FOR (of) ACCEPTABLE (of) SUPPLY/RESERVE IN/TO/AT/ON/OF/LIKE CALCULATION/DISSOLVING, (of) (to/for) (by/with/as) HIS/THE/THAT IT IS POSSIBLE TO REPLACE FOR/TO (of) (by/with/as) FLAT (by/with/as) TORRENT/STREAM/FLOW, EVEN IF IN/TO/AT/ON/OF/LIKE (of) (to/for) (by/with/as) CERTAIN SOME (of) (to/for) (by/with/as) PART/DEPARTMENT/PATH UNIT (of) (of) (to/for)!

13. LAST/LATTER CIRCUMSTANCE ACQUIRES SEPARATE/SPECIAL SIGNIFICANCE VALUE 1, BECAUSE (UP TO) BEFORE (of) PRESENT/REAL (of) (to/for) TIME/TENSE WE NOT WE HAVE (OF) SOME ANY (of) METHODS OF INVESTIGATION FILTERATION (S) (OF) (TO) FOR/WITH WITH/AS SPATIAL (OF) FILTERATION (S).

14. INVESTIGATION OF SPATIAL OF TORRENTS/STREAMS/FLOWS IT TURNS OUT/TO BE/IS EXERTED GIVEN (OF) (TO) FILTERATION (S) (OF) (TO) FOR/WITH WITH/AS SOMETHING ELSECTORIAL (OF) MATERIAL OF+MEANS REMEDIES, BUT AND FOR THAT REASON THEY ARE USED ADAPT-SELVES ONLY AT/WITH/BEFORE/IN-TIME-OF PROJECTING/PLANNING SEPARATELY/SPECIAL ELUSION (OF) RESPONSIBLE/CRITICAL (OF) BUILDINGS.

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1. ABOUT/AGAINST/WITH ROLLING/SLIDING/RIDING (of) SPHERE/BALLOON ON/BY/ALONG/IN/--- (of) (to/or) = (by/with/as) HORIZONTAL * (of) (to/or) HORIZONTAL SURFACE.

2. 1. INTRODUCTION.

3. PROBLEM ABOUT/AGAINST/ WITH ROLLING/SLIDING/RIDING (of) DIFFICULT/HEAVY/SERIOUS (of) SOLID/HARD/-FIRM (of) BODY(S) ON/BY/ALONG/IN/--- (of) (to/or) = (by/with/as) HORIZONTAL * (of) (to/or) HORIZONTAL SURFACE IN/TO/AT/ON/OF/LIKE PRESENT/REAL TIME/TENSE, IS SOLVED/ALLOWED/ARISER, ONLY AS SOON AS IN/TO/AT/ON/OF/LIKE (of) FEW (of) PRIVATE/PARTICULAR/QUOTIENT, PARTIAL, CASES/CHANCES/ OCCURRENCES.

4. BEAD (of) MADE OUT/TAKEN APART STILL YET/MORE ALSO KILRON (of) CASE/CHANCE/OCCURRENCE, WHEN ROLLING/SLIDING BODY (IS) LIMITED = (by/with/as) CYLINDRICAL = (by/with/as) SURFACE, EXACT/PRECISE (of) (RED/SOLUTION/DECISION/DERIVATION, S) ARE (WELL) KNOWN/CERTAIN: FOR = (of) HOMOGENEOUS (of) SPHERE/BALLOON, BUT ROUND (of) DISC, FOR = (of) HETEROGENEOUS (of) SPHERE/BALLOON, CENTER/OF/GEOMETRY (of) WHICH COINCIDES WITH/ABOUT (to/or) (by/with/as) GEOMETRIC (by/with/as) CENTER/NUCLEUS, AND CENTRAL CENTER ELLIPSOID (of) (to/or) INERTIA HAS (IN) FORM (of) SPHEROID, (of) US IT SUCCEEDED: (TO) SHOW/TESTIFY, THAT WHAT/WHICH THIS PROBLEM IS BROUGHT/CITED/REDUCED = (TOWARD) /FOR (to/or) SQUARES/QUADRATURES AND EVERY/TOO, IN A CASE WHERE CENTER/OF/GEOMETRY NOT COINCIDES WITH/ABOUT (to/or) (by/with/as) GEOMETRIC (by/with/as) CENTER/NUCLEUS.

5. IN/TO/AT/ON/OF/LIKE (of) ALL = (of) BROUGHT/CITED/REDUCED CASES/CHANCES/OCCURRENCES (of) POINT/SPOT, *= (of) POINT-CONTACT (of) MOVING/ADVANCING/(BEING) MOVED (of) BODY(S) (to/TOWARD), FOR (of) (to/or) PLANE/= FLATNESS(S) (to/or) (by/with/as) NECESSARY, (of) (by/with/as) CONDITION (of) (RED/SOLUTION/DECISION/ DERIVATION, S) WAS TAKEN/RECEIVED EQUITY/EQUATION (of) TWO (of) MAIN (of) MOMENTS-OF-INERTIA.

6. HOW AS MUCH/MANY WE (WE) KNOW, NOT NEITHER ONE/ONE/A LIKE PROBLEM ABOUT/AGAINST/ WITH ROLLING/SLIDING/RIDING (of) BODY(S), CENTRAL CENTER ELLIPSOID (of) (to/or) INERTIA (of) WHICH HAS VERY SHARP/SPICE/ASPECT, (of) TRIAXIAL (of) ELLIPSOID, NOT WAS UP-TO-SHOW IS SOLVED/DECIDED IN/TO/AT/ON/OF/LIKE (of) (to/or) (by/with/as) ALL (to/or) WIDTH/LATITUDE, IN/TO/AT/ON/OF/LIKE (of) (to/or) (by/with/as) (BEING) OFFERED (to/or) ARTICLE WE (WE) SOLVE/DECIDE QUESTION OF ROLLING/SLIDING/RIDING ON/BY/ALONG/IN/--- (of) (to/or) PLANE/FLATNESS (of) SYMMETRICAL (of) SPHERE/BALLOON, WHEREIN NOT (WE) AY, (=) IMPOSE (of) NO (of) CONSTRAINTS NOT/= NEITHER ON/IN/IN/TO/AT/ON/OF/BE/WITH MAIN MOMENTS/FEATURES (of) (to/or) INERTIA, NOT/NEITHER ON/IN/AT/TO/AT/BE/WITH INITIAL/ELEMENTARY (of) CIRCUMSTANCE (of) MOTION/MOVEMENT(S).

7. (TOWARD) /FOR (to/or) ANALYTIC (RED/SOLUTION/DECISION/DERIVATION, S) (of) (to/or) = (by/with/as) THIS (of) PROBLEM(S) WE (WE) JOIN/ADD IN/TO/AT/ON/OF/LIKE END/WAY/LEAD, (of) WORK(S) CERTAIN/SOME GEOMETRIC (of) CONFIGURATION(S), IN/AT/O -- CONSIDERABLE/SIGNIFICANT * TO A CONSIDERABLE/EXTENT CLARIFYING CHARACTER (of) MOTION/MOVEMENT(S) IN/TO/AT/ON/OF/LIKE GENERAL/COMMON/TOTAL CASE/ CHANCE/OCCURRENCE AND EVERY/TOO, --- DRAWING/PAINTING FULL/STOUT/COMPLETE (of) (to/or) (by/with/as) HIS/HER/NIN/TEN PICTURE AT/WITH/BEFORE/IN-TIME-OF (of) SEPARATE/SPECIAL (of) PRIVATE/PARTICULAR/ QUOTIENT, PARTIAL ASSUMPTIONS.

8. SUCCESS (of) RED/SOLUTION/DECISION/DERIVATION(S) IS DETERMINED/CONDITIONED (by/with/as) APPLICABILITY TO (TOWARD) /FOR (to/or) (BEING) CONSIDERED/OBSERVED (to/or) QUESTION (of) (to/or) = (by/with/as) GENERALIZED (of) THEOREM(S) (of) SQUARES/AROUND/SPACES, ON/ACCOUNT-OF (of) (to/or) (by/with/as) WHICH MAIN MOMENT/FEATURE (of) QUANTITIES (of) MOTION/MOVEMENT(S) (of) OUT (of) SPHERE/BALLOON, BUILT FOR (of) POINT/PERIOD/SHARPENING(S) * (of) POINT(S) OF CONTACT TO (TOWARD) /FOR (of) (to/or) PLANE/FLATNESS(S), MUST/SHOULD/ONE (of) (to) KEEP CONSTANT/PERMANENT/DIRECT, MAGNITUDE/QUANTITY AND EVERY/TOO, --- CONSTANT/INVARIABLE DIRECTION IN/TO/AT/ON/OF/LIKE SPACE/AREA.

9. (by/with/as) THIS (of) THESE (by/with/as) CIRCUMSTANCES WE (WE) MAKE-USE-OF/ENJOY AND EVERY/TOO, ---
1. ALGEBRAIC (of/to/for) FUNCTION(s) (of) MANY (of) INDEPENDENT *(of) INDEPENDENT VARIABLES.

2. DIRECT GENERALIZATION (of) METHODS (of/to/for) THEORY(s) (of) ALGEBRAIC (of) FUNCTIONS ON/IN/AT/- TO/IN/AT/OF/BY/WITH (of/to/for) FUNCTION(s) FROM/OF/FOR (of) SEVERAL (of) INDEPENDENT *(of) INDEPENDENT VARIABLES MEETS BIGGER (of) DIFFICULTY(s).

3. APPLICATION (of) (of/to/for) THEORY(s) (of) ANALYTIC (of) FUNCTIONS NOT BRINGS/CITIES/REDUCES1 TO... (WARD)/FOR (of/to/for) (by/with/as) SUCH (of/to/for) (by/with/as) ENDED/COMPLETED (to/for) RESULTS, HOWAS-/ BUT IN/TO/AT/ON/OF/LIKE CASE/CHANCE/OCCURRENCE (of/to/for) (by/with/as) ONE/ALONE (of/to/for) (by/- WITH/AS) INDEPENDENT *(of/to/for) (by/with/as) INDEPENDENT VARIABLE, IN AS MUCH AS SELF THEORY (of) ANALYTIC (of) FUNCTIONS NOT ADMITS (IT) IS SUFFICIENTLY (of) SATISFACTORY (of) GENERALIZATION(S) ON/IN/AT/TO/OF/IN/AT/OF/WITH CASE/CHANCE/OCCURRENCE (of) SEVERAL (of) VARIABLE/ALTERNATING3/- REVERSIBLE1.

4. GENERALIZING Riemann *Riemann-surfaces, we collide/meet WITH/FROM/ABOUT (by/with/as) IGNORANCE (of/to/for) (by/with/as) FULL/STOUT/COMPLETE (of) SYSTEM(S) (of) TOPOLOGICAL (of) VARIANTS (of) SURFACES IN/TO/AT/ON/OF/LIKE (of) MULTIDIMENSIONAL SPACES/AREAS (CLOSED/LOCKED/RESERVED (of/to/for) SURFACE(S) IN/TO/AT/ON/OF/LIKE (of) THREE-DIMENSIONAL SPACES/AREAS (THEY HAVE ONLY*- SINGULAR INVARIANT --- ORDER *ORDER-OF-DEPENDENCY).

5. ARITHMETICAL THEORY ALSO NOT ADMITS (of) SATISFACTORY (of) GENERALIZATION(S), SINCE THEORY (of) IDEALS IN/TO/AT/ON/OF/LIKE CASE/CHANCE/OCCURRENCE (of) SEVERAL (of) INDEPENDENT *(of) INDEPENDENT VARIABLES NOT BRINGS/CITIES/REDUCES1 TOWARDS/FOR (of/to/for) ONE/DIGIT/INDIFFERENT (to/for) DEMORALIZATION/DECOMPOSITION/EXPANSION11 (of) IDEALS ON/IN/AT/TO/OF/IN/AT/OF/WITH SIMPLE/ELEMENTARY3/- PRIME1 IDEALS.

6. BÍRATIONAL = BIRATIONAL-TRANSFORMATIONS NOT (THey) LEAVE/RESERVE (by/with/as) INvariant EVEN (of) MEASUREMENTS (of) IDEALS.

7. HOWEVER WITH-THE-AID-OF (of) GEOMETRIC (of) METHOD IN/TO/AT/ON/OF/LIKE (of/to/for) THEORIES (of) ALGEBRAIC (of) FUNCTIONS FROM/OF/FOR (of) TWO (of) INDEPENDENT *(of) INDEPENDENT VARIABLES (THERE) WAS (IS) GOTTEN RATHER (IT) IS KNOWN MUCH/MANY (of) RESULTS.

8. HERE THE-MOST (by/with/as) PRODUCTIVE (THEY TURNED-OUT-TO- BE REPRESENTATIVES (of/to/for) (by/- WITH/AS) ITALIAN (of) SCHOOL(S) (of) GEOMETRISTS.

9. BASIC RESULTS (of/to/for) (by/with/as) THEIR(S) THEY BROUGHT/CITED/REDUCED1 IN/ TO/AT/ON/OF/LIKE (of/to/for) (by/with/as) BIG (of/to/for) MONOGRAPH(S) PICARA (R. PICARA)

AND/EVEN/TOO---- $\$IMARA (~G. SIMARA~) [82], WHICH SIDE-BY-SIDE-WITH (to/for) (by/with/as) GEOMETRIC (by/with/as) METHOD, (IS) WIDE(LY) (THEY) MADE-USE-OF/ENJOYED (by/with/as) METHOD (of/to/for) THEORY(S) (of) ANALYTIC (of) FUNCTIONS.

10. (by/with/as) BASIC (by/with/as) INVARIANTS (of) ALGEBRAIC (of) SURFACES (1) $f(x,y,z) = 0$ CONSIDERING (IS) RELATIVELY (of) ALL-POSSIBLE (of) RATIONAL *(of) RATIONAL-TRANSFORMATIONS (THEY) ARE/APEPEAR:

(1) GEOMETRIC GENRE $P_a$, THAT-IS NUMBER/DATE (IS) LINEAR/(L)/LINE $y_9$ (of) INDEPENDENT (of) DOUBLE/GENUS/41 (of) INTEGRALS 1-TH (OF) TYPE/TREE/GENUS/GENDER $g_2$ THAT-IS (OF) TAKING/- RECEIVING EVERYWHERE FINAL/FINITE (OF) SIGNIFICANCE/VALUE1 (S); (2) ARITHMETICAL GENRE $P_a$ OR $P_n$, WHICH WE NOT (WE) SHALL/BE (IT) (IS/ARE) CLOSER (TO) DEFINE/DETERMINE/ASSIGN/HIT IT NOT EXCEEDS $P_a$ AND/EVEN/TOO---- FOR (OF) CERTAIN/SOME (OF) SURFACES HAS NEGATIVE SIGNIFI-

(2) SIGNIFICANCE/VALUE; (3) REGIONS $P_a$, WHICH IT IS POSSIBLE (TO) DEFINE/DETERMINE/ASSIGN HOW/AS/GET NUMBER/DATE (IS) LINEAR/(L)/LINE $y_9$ (OF) INDEPENDENT (OF) QUADRUPLE (OF) INTEGRALS IN/TO/AT/ON/OF/- LIKE FIEL/A/BRAIN/MARGINE/(to/for) FLAP $(x,y,z; \tau, \eta, \xi)$, WHERE SIDE-BY-SIDE-WITH (1), HAS
§65. MUTUAL/RECIPEAL INTERSECTION (OF) POLYHEDRONS.

CONSTRUCTION/FORMATION (OF) (TO/FOR) LINE(S) * (OF) (TO/FOR) LINE-OF-INTERSECTION (OF) SURFACES (OF) POLYHEDRONS (IT) IS POSSIBLE (TO) MAKE/DERIVE (BY/WITH/AS) TWO (BY/WITH/AS) METHODS, COMBINING (OF) (TO/FOR) (BY/WITH/AS) THEIR (OF) THEM BETWEEN/AMONG (BY/WITH/AS) SELF/SELVES OR CHOOSING/TAKING-OUT OUT FROM THEM THAT, WHICH DEPENDING-OF (OF) CONDITIONS (OF) PROBLEM/ASSIGNMENT (OF) GIVES--ALLOWS MORE SIMPLE/ELEMENTARY, PRIMARY (OF) CONSTRUCTION/FORMATION (OF) POLYHEDRONS.

THESE METHODS FOLLOWING: 1) (THEY) DEFINE/DETERMINE/ASSIGN (OF) POINT/PERIOD/SHARPENING (OF) IN-/TO-/AT-/ON-/OF-/LIKE (OF) (OF) RIB/EDGE/RIFLE (OF) ONE/ALONE OUT FROM (OF) POLYHEDRONS (THEY) CROSS/CUT (OF) (TO/FOR) FACE/BOUNDARY/PERIOD (OF) (OF) ANOTHER AND/EVEN/TOO-----(OF) RIB/EDGE/RIFLE (OF) (OF) SECOND (THEY) CROSS/CUT (OF) (TO/FOR) FACE/BOUNDARY/PERIOD (OF) FIRST.

2) (THEY) DEFINE/DETERMINE/ASSIGN PIECES/SEGMENTS (OF) CUTTING-OFF (OF) DIRECT/STRAIGHT/LINE (OF) RIGHT OBTAINED BY/ALONG/THROUGH (OF) WHICH (OF) (TO/FOR) FACE/BOUNDARY/PERIOD (OF) ONE/ALONE OUT FROM (OF) POLYHEDRONS (THEY) CROSS/CUT (OF) (TO/FOR) FACE/BOUNDARY/PERIOD (OF) (OF) ANOTHER PIECE/SEGMENT (OF) CUTTING-OFF (THEY) APPEAR (BY/WITH/AS) LINKS/TEAM (OF) (TO/FOR) BY/WITH/AS (BEING) GIVEN AT/WITH/BETWEEN/IN-TIME-OF INTERSECTION (OF) POLYHEDRONS (OF) (TO/FOR) (BY/ WITH/AS) THE SAME (OF) (TO/FOR) FACE/BOUNDARY/PERIOD (OF).

7) IF PROJECTION (OF) RIB/EDGE/RIFLE (OF) ONE/ALONE OUT FROM (OF) POLYHEDRONS NOT CROSSES/ CUTS (OF) (TO/FOR) PROJECTION (OF) (OF) (TO/FOR) FACE/BOUNDARY/PERIOD (OF) (OF) ANOTHER EVEN IF ON/IN/AT/TO/FOR/BY/THROUGH (OF) (OF) ONE/ALONE OUT FROM (OF) PROJECTION (OF) THESE (OF) BODIES, THAT/THERE/ON GIVE RIB/EDGE/RIFLE NOT CROSSES/CUTS (OF) (TO/FOR) (BY/WITH/AS) THIS (OF) (TO/FOR) FACE/BOUNDARY/PERIOD (OF).

8) HOWEVER INTERSECTION (OF) PROJECTIONS (OF) RIB/EDGE/RIFLE (OF) AND/EVEN/TOO-----(OF) (TO/FOR) FACE/BOUNDARY/PERIOD (OF) STILL/YET MORE/ALSO NOT SIGNIFICANT, THAT/WHAT/WHICH THESE RIB/EDGE/RIFLE AND/EVEN/TOO----FACE/BOUNDARY/PERIOD (OF) ARE CROSSED OUT/(THEY) CROSS IN/AT/TO/FOR/IN/LINE SPACE/AREA.

9) AT/WITH/BETWEEN/IN-TIME-OF SELECTION (OF) AUXILIARY (OF) PLANES/FLATNESS, (OF) NECESSARY FOR (OF) FINDING/LOCATION (OF) POINTS/PERIODS/SHARPENINGS (OF) POINTS/INTERSECTION (OF) RIBS/EDGES----
10. IN/AT/ON -- CERTAIN/SOME OUT/FROM (of) (BEING) BROUGHT/CITED/REDUCED, (IS/ARE) LOWER/SHORTER/BELLO
    (of) EXAMPLES WE (LET-US/WE-SHALL USE STATED (IS/ARE) HIGHER/TALLER/BETORE GENERAL/COMMON/TOTAL
    (of) DIAGRAM/PLAN (S) (of) CONSTRUCTION/FORMATION (S) (S) (of) POINTS/PERIODS/SHAPE/RIGHTS *(of) POINTS-OF-
    INTERSECTION; IN/TO/AT/ON/OF/LIKE (of) OTHER -- (WE) (SHALL/LET-US) MAKE-USE-OF (by/with/as) PRIVATE/-
    PARTICULAR/QUOTIENT/PARTIAL, (by/with/as) PECULIARITIES (of) DIAGRAM AND/EVEN-TOO (by/with/as) WE-
    SHALL SIMPLIFY (of) CONSTRUCTION/FORMATION (S) (S).

9. -- MIXPOSITIONS, pg. 297-9

1. INFECTION/CORRUPTION (by/with/as) MODULAR *(by/with/as) MODULAR-BACTERIA COMES/ADVANCES/THREATS ES-
    SPICULARLY/PECULIARLY (IT) (IS) LIGHT/EASY(LY) AT/BY/WITH/FROM (of) PLANTS, (of) WHEAT/LOOSENED
    (to/for) (by/with/as) NITROGEN/NITROUS (by/with/as) STARVATION, AND/EVEN/TOO (IS) INSIGNIFICANT/-
    SIGNIFICANTLY (IS) MORE-DIFFICULT(LY) HAPPENS/COMES-FROM AT/BY/WITH/FROM (of) PLANTS, (IS)
    ENERGY(ALLY) (of) GROWING/ON/IN/AT/TO/FOR/BY/WITH (of) WHICH (OF) NITROGEN/NITROUS SOIL/GROUNDS.

2. PROCEEDING-FROM THIS (of) FACT/CASE, (THERE) WAS (IS) EXPRESSED ASSUMPTION, THAT/WHAT/WHICH MODU-
    LAR *MODULAR-BACTERIA (THEY) ARE/APPARES (by/with/as) PARASITE/IDLES (of) LEGUMINOUS-PLANTS.

3. FURTHER, MORE CLOSE STUDY SHOWED/TESTIFIED (that) WHAT/WHICH NOT ALWAYS (of) (to/for)
    BACTERIA (THEY) SHOW/DEVELOP ACTIVITY, SOMETIMES AND/EVEN/TOO (IS) PLANT CAN (of) (to/for-
    (by/with/as) THEIR(S) / THEM (to) DISOLVE/OPEN-WIDE INSIDE (of) CAVES/SQUARES/CELLS/MESSAGES.

4. BUT/AND SINEE PRODUCTS/PROVISOINS (of) SOLUTIONS (of) BACTERIA PLANT, APPARENTLY
    CAN (to) USE FOR (of) OWN (of) FEEDING/NOURISHMENT (S), THAT/THEN/OR (THERE) WAS (IS) EXPRESSED
    REVERSE/INVERSE/CONVERSE/RETURN ASSUMPTION, THAT/WHAT/WHICH NOT (of) (to/for) BACTERIA, BUT/
    AND SELF LEGUMINOUS-PLANT IS APPARES (by/with/as) PARASITE/IDLES (of) BACTERIA.

5. HOWEVER CHARACTER (of) INTERRELATIONS BETWEEN/AMONG (by/with/as) MODULAR *MODULAR-BACTERIA AND/
    EVEN/TOO (by/with/as) LEGUMINOUS/BEAN * (by/with/as) LEGUMINOUS-PLANTS, APPARENTLY, SEVERAL-
    SOMEWHAT (of) (to/for) (by/with/as) (AN) OTHER.

6. IT IS POSSIBLE (to) CONSIDER/COUNT (IS) EXACT/PRECISELY (to/for) (by/with/as) INSTALLED/ESTABLISHED/-
    PLACED, THAT/WHAT/WHICH LEGUMINOUS-PLANT FURNISHES/DELIVERS (to/for) (by/with/as) MODULAR *(to/
    for) *MODULAR BACTERIA NON-NITROGENOUS ORGANIC (of) SUBSTANCE(S) (of) SQUARE(S), WHICH IN/TO-
    AT/ON/OF LIKE CAVES/SQUARES/CELLS/MESSAGES (of) BACTERIA ARE SUBJECTS/EXPOSED (to/for) WORKING-
    OVER/TIME AND/EVEN/TOO (IS) PARTIALLY (by/with/as) PART/DEPARTMENT/PART/UNIT 97 (THEY) GO-OVER/CHANGE
    IN/TO/AT/ON/OF LIKE NITROGEN/NITROUS *NITROGENOUS-COMPOUNDS AT-THE-EXPENSE (of) (to/for) ASSIMILA-
    TION (of) MOLECULAR (of) NITROGEN.

7. PART/DEPARTMENT/PART/UNIT 97 (of) NITROGEN/NITROUS (of) SUBSTANCES IS-CONSUMED (by/with/as) SELVES
    (by/with/as) BACTERIA FOR (OF) CONSTRUCTION/FORMATION 97 (of) WHAT/PROTEINS (OF) OWN (OF)
    BODY(S), BUT/AND PART/DEPARTMENT/PART/UNIT 97 (of) (to/for) (by/with/as) THEIR(S) / THEM STANDS-OUT/
    IS DISCHARGED/ISOLATED/ALLOTTED TO-THE-OUTSIDE/OUTWARD IN-THE-FORM/IN-AT/ON VIEW SPECIES 97 (of)
    SUBSTANCES, (OF) (BEING) ASSIMILATED FURTHER (to/for) (by/with/as) LEGUMINOUS/BEAN *(by/with/as)
    LEGUMINOUS-PLANT.

8. ONLY IN/AT/ON -- CERTAIN/SOME IN-SOME CASES (of) INFECTION/CONSUMPTION(S) MODULAR *MODULAR-
    BACTERIA NOT FORMS/EDUCES INSIDE (OF) MODULAR (OF) BACTERIA, NOT (WILL) ASSIMILATE (S)
    (OF) NITROGEN AND/EVEN/TOO (IS) AS IF PARASITORS ON/IN/AT/TO/TOR/BY/WITH PLANT.

9. (by/with/as) WHAT/WHICH THAN THE HOWEVER/THEN ALSO SUCH PROPERTY/NATURE/RELATIONSHIP (OF) BACTERIA
    IS DETERMINED/CONDITIONED?
10. ALONGSIDE/ (by/ with/as) ROW/SERIES (of) INVESTIGATIONS (THURSTON) WAS (IS) SHOWN/TESTIFIED_89, THAT WHAT/
WHICH SYMBIOTIC CONTACT BETWEEN/AMONG (to/for/ (by/with/as) LEGUMINOUS/BEAN * (by/with/as) LEGUMINOUS/PLANT
AND/EVEN/TOO/------ (by/with/as) BACTERIA IS INSTALLED/ESTABLISHED/PLACED ONLY THEN, WHEN IN/TO/AT/ON/OF/LIKE
(to/for) MEDIUM/ENVIRONMENT/WEDNESDAY THERE ARE EVEN IF) TRACES NORTH/WIND (of) BIRCH/DRILL_93/CONIFEROUS-FOREST.
11. IN/TO/AT/ON/OF/LIKE ABSENCE (of) LAST/LATTER FIBRINOUS THREADS/FIBRES/SUTURES_94, GOING/COMING/-
SUETING FROM/OP/OF (of) (to/for) (by/with/as) VASCULAR *(of) VASCULAR-SYSTEM (of) ROOT/RADICAL_1
TO-WARD/TO/FOR (to/for) NODELLE, (THEY) DEVELOP/UNTWIST/ARE DEVELOPED/UNTWISTED (IS) INSIGNIFICANT/NEGLIGIBLELY
OR AT-ALL/COMPLETELY NOT (THEY) DEVELOP/UNTWIST/ARE DEVELOPED/UNTWISTED.
12. IN/TO/AT/ON/OF/LIKE SUCH CASE/CHANGE/OCURRENCE (of) (to/for) BACTERIA ALTHOUGH (THEY) ARE/FOUND/------
IS/TO/AT/ON/OF/LIKE ROOT/RADICAL, BUT (THEY) GET FEW/LITTLE/(IS) SMALL (of) SUGARS, NOT
(THEY) CAN (to) SYNTHESIZE IN/TO/AT/ON/OF/LIKE SUFFICIENT QUANTITY NITROGEN/NITROUS *NITROGEN-
OR AT-ALL/COMPLETELY NOT (THEY) GET OR (THEY) GET FEW/LITTLE/(IS) SMALL (of) THUS/CONNECTED/ENLISTED
(of) NITROGEN.
13. NON- SUCCESSFUL CONTACT IN/TO/AT/ON/OF/LIKE FIRST PERIODS (of) EDUCATION/FORMATION(S) (of)
MODULE BRINGS/CHANGES/REDUCES_1 TO/WARD/TO/FOR (to/for) COMPLICATIONS (of) (to/for) (by/with/as)
NORMAL *(of) NORMAL-PICTURE.
14. THESE (of) COMPLICATION(S) AND/EVEN/TOO/------ (THEY) CREATED IMPRESSION AT/ BY/ WITH/ FROM (of) MANY (of)
INVESTIGATORS, THAT/WHAT/WHICH (of) (to/for) BACTERIA (THEY) ARE/APPEAR (by/with/as) PARASITES/IN-FLUENCE
PLANTS (of) PLANTS.
15. SUCH POSITION/CONDITION/THESIS/REGULATIONS STILL/MORE/ALSO MORE WAS INCREASED, (by/with/
as) THE-FACT THAT/THAT WHICH IT WAS POSSIBLE (to) OBSERVE/SUPERVISE DISSOLVING (of) MODULAR *(of) MODULAR-
BACTERIA INSIDE (of) NODELLE.
16. ONLY THEN/ (by/with/as) SWEAT WAS CLARIFIED/ASCERTAINED, THAT/WHAT/WHICH THIS DISSOLVING MUST/
SHOULD/OES (to) BE (IS) ASCRIBED/POSTSCRIPTED NOT (of) (to/for) ACTIVITY (of) LEGUMINOUS/BEAN
* (of) LEGUMINOUS-PLANT, BUT/AND (to/for) PRESENCE IN/TO/AT/ON/OF/LIKE HIM/IT/MALE (of) SEPARATE/SPECIAL
(of) ULTRAMICROSCOPIC (of) BACTERIOPHAGES,
17. THEY (THEY) CAN (to) BE (ARE) REVEALED/DISCOVERED IN/TO/AT/ON/OF/LIKE CLOTHS/TISSUES_4 (of) BEAT/ROOT-
RADICAL_1 AND/EVEN/TOO/------ EVEN (of) STALK/SHAFT_91/BEAT, BUT APPARENTLY, NOT ALWAYS, SINCE
SHVETSOGOEL (IT) SUCCESSED (to) SHOW/TESTIFY_89, THAT/WHAT/WHICH BACTERIOPHAGE SOMETIMES (IS) IN-
CAPABLE (to) PENETRATE IN/TO/AT/ON/OF/LIKE PLANT TOGETHER WITH (by/with/as) BACTERIA, ALTHOUGH
IS/KEPT IN/TO/AT/ON/OF/LIKE (of) (to/for) (by/with/as) SURROUNDING PLANT (to/for) MEDIUM/ENVIRONMENT/
WEDNESDAY.
18. (of) (to/for) BACTERIA HOWEVER/THEN/ALSO (IT) LIKELY/ASYMPTOTICALLY (THEY) PENETRATED IN/TO/AT/ON/OF/LIKE
PLANT AND/EVEN/TOO/------ IN THE-PRESENCE (of) BACTERIOPHAGE, FORMING/EDUCING BIG QUANTITY
(of) MODULES.
19. ON-THE-BASIS (of) THIS (of) OBSERVATIONS/SUPERVISIONS IT IS NECESSARY/FOLLOWS (to) SUPPOSE, THAT/
WHAT/WHICH ROLE (of) BACTERIOPHAGES IN/TO/AT/ON/OF/LIKE INTERRELATIONS BETWEEN/ (by/with/as)
LEGUMINOUS/BEAN * (by/with/as) LEGUMINOUS-PLANTS AND/EVEN/TOO/------ (by/with/as) BACTERIA MORE
(IS) LIMITED, (by/with/as) WHAT/WHICH/THEM TAKED/TAKEN UP-WHAT/AND/WHEN THE TAKED/RECEIVED UP-TO-NOW.
20. THEREFORE ANSWER-TO-QUESTION, HAS (WHETHER) PLACE IN/TO/AT/ON/OF/LIKE INTERRELATIONS (of)
BACTERIA AND/EVEN/TOO/------ (of) LEGUMINOUS/BEAN * (of) LEGUMINOUS-PLANTS PARASITISM OR SYMBIOSIS
-- STILL/YET/MORE/ALSO NOT COMpletely (IS) CLEAR, BUT ASK/SUGGESTED/SHELY *COME-TO-MIND.
21. BRO/SERIES (of) OBSERVATIONS/SUPERVISIONS (IS) (A) QUICK(S) /RATHER SPEAKS/SAWS IN-FAVOR (of)
SYMBIOSIS.
22. ON/IN/AT/TO/OF/BY/WITH THE-SAME (THEY) SHOW/POINT AND/EVEN/TOO/------ (of) QUANTITY(S) (of) ASSIMI-
lated (by/with/as) leguminous/bean *(by/with/as) leguminous-plants *(cf)nitrogen.

23. They (is) considerable/significant (ly) more/(is/are) bigger, (by/with/as) what/which/than/that these, which plant could(have) (to) get, if (would-have/would) only dissolved/opened-wide nodular *node/bacteria.

10 — Geseg Гаиология, pp. 130-2

1. Chapter/Head 6.
2. Roots/Radicals, (of/to/for) branches *(of) kunaal-ganiglia.
3. Self name "Neural-ganglion" speaks — for — that *speaks—for-the-fact—that education/-formation, (being) designated (by/with/as) this/(to/for) these (by/with/as) ganglion/them, ties—connects/units between/among (by/with/as) self/selves going/coming/sitting in/to/at/on/of like (of/for) different directions nerve/nervous conductors.
4. Neural-ganglion — synaptic organ/agency, that—is in/to/at/on/of/like him/her/move happens—comes—from contact (of) nerve/nervous *(of) nerve-ending *(of) pericellular *(of) apparatus *(of) (to/for) (by/with/as) one/alone (of) cage/square/cell *(of) mesi_1*(s) with/from/about (by/with/as) body or (by/with/as) sprout_1/appendage/extension *(of) (to/for) (by/with/as) (an) other *(of) nerve-cell.
5. Besides (of) that, over/through/within/every/other knot/junction/bundle/node_1/ganglion_2/assembly_3/joint_4 (they) come/suit bundles/wise/paicles_4/gasm_24 *(of) fibers and/even/too—separate/individual *(of) fiber(s), which not/Neither in/to/at/on/of like (of) *(to/for) *(by/with/as) what/which/*any apparent with/from/about *(by/with/as) elements *(of) knot/junction/bundle/node_1/ganglion_2/assembly_3/joint_4 *(not) *(they) enter.
6. All this involves—the-fact—that/which knot/junction/bundle/node_1/ganglion_2/assembly_3/joint_4 is tied/connected/knitted *(by/with/as) nerve/nervous *(by/with/as) nerve/trunks with/from/about *(by/with/as) surrounding *(of) education/formation.
7. *(of) (to/for) connection/communication/bond_3/coupling_4/brace_4/ liaison_4*(s) *(of) knot/junction/bundle/node_4/ganglion_3/assembly_2/joint_3 *(there) are usually/occur *(of) usual *(of) order, in—the-first/place, knot/junction/bundle/node_4/ganglion_3/assembly_2/joint_3 is tied/connected/knitted *(with/through) *(from/about) *(by/with/as) forming/educating *(of) *(to/for) *(by/with/as) his/its/nim/it *(by/with/as) nerve/nervous *(by/with/as) nerve-threads, on/by/along/for/in—** *(to/for) *(by/with/as) which went/come/suit/move/advance *(of) *(to/for) *(by/with/as) his/its/nim/it *(by/with/as) cage/kell_4 *(of) masses/pastes/pulp and/even/too—** *(which) *(by/with/as) contact *(of) *(to/for) *(by/with/as) his/its/nim/it *(by/with/as) central/center *(of) *(by/with/as) central/nervous/system and/even/too—** in—the-second/place, knot/junction/bundle/node_4/ganglion_3/assembly_2/joint_3 is tied/connected/knitted *(with/through) *(from/about) *(to/for) *(by/with/as) (being) innervated *(by) organ/agency.
9. *(is) usual/(li) root/radicals_1 *(is) functional/(ly) *(are) demarcated; for-example, *(they) exist: sensitive/perceptible/sensory_4 motor, sympathetic roots/radicals_1 *(fig. 27).
10. *(uni) form and/even/too—** magnitude/quantity *(of) roots/radicals_1 *(is) extraordinary/(ly) *(they)* vary.
11. First-of-all *(are) common such cases/chances/occurrences, when root/radical_1 is absent, that—is knot/junction/bundle/node_4/ganglion_3/assembly_2/joint_3 *(is) direct/(ly) *(is) brazed—soldered *(with/from/about) *(to/for) *(by/with/as) own *(by/with/as) nerve-thread.
12. But, *(it) turns-out—to-be/*is exerted/given, that/what/which this absence only seeming.