A treatise upon arcanography; or, A new method of secret writing, defying discovery or detection, and adapted for all languages; together with working plates and directions for use. By William Henry Rochfort

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Rochfort, William Henry.

London: De La Rue and co., 1836.

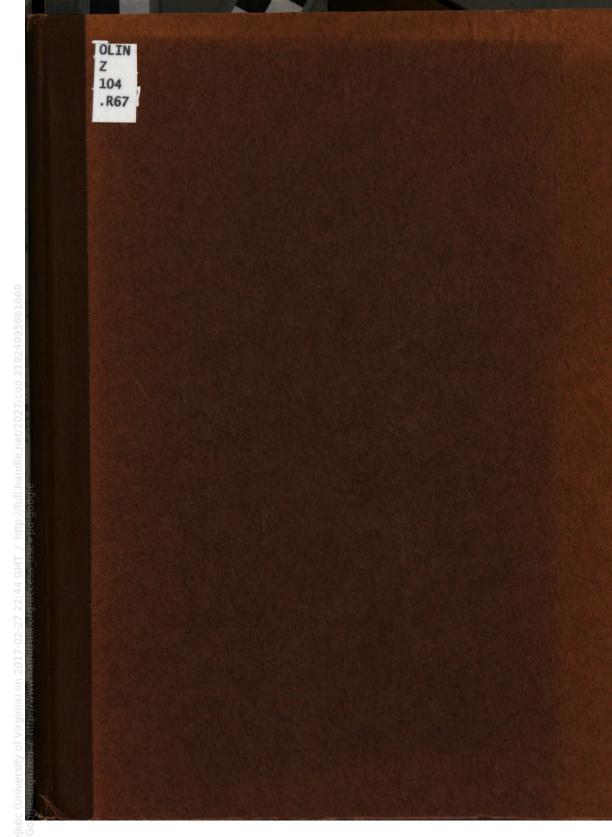
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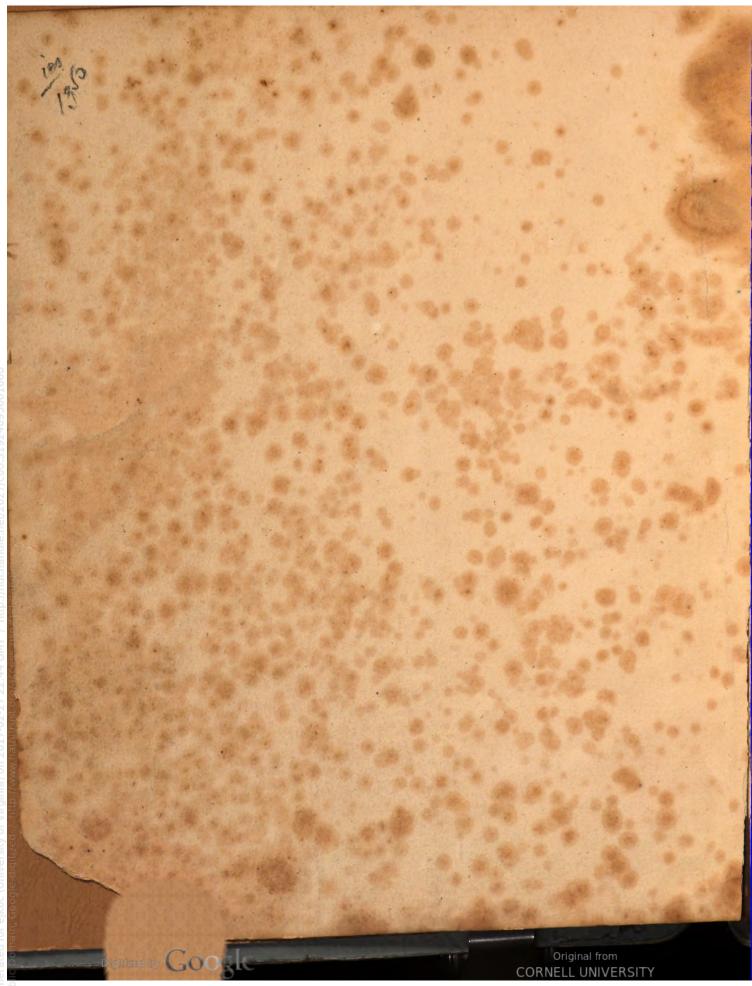


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# A TREATISE

UPON

# ARCANOGRAPHY;

OR, A

NEW METHOD OF SECRET WRITING,

DEFYING DISCOVERY OR DETECTION,

AND ADAPTED FOR ALL LANGUAGES;

TOGETHER WITH

WORKING PLATES AND DIRECTIONS FOR USE.

#### BY WILLIAM HENRY ROCHFORT,

LATE LIEUT. COL. OF ARTILLERY, IN THE SERVICE OF H.M.F.M. DONNA MARIA II.

#### LONDON:

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1836.

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# ARCANOGRAPHY.

ARCANOGRAPHIC, or Secret Writing, hitherto, has been effected by means of ciphers only, and no system has been ever yet laid down so as to defy detection. During the long continental war, it was the boast of Napoleon's "bureau noir," or deciphering bureau, that no foreign letter ever passed through France unread. This bureau was composed principally of Austrians, celebrated throughout Europe for the quickness of their perception, and especially for deciphering purposes. After the battle, or rather the "affair," before Paris, in 1814, (by the French termed the "Ragusade,") and the subsequent entry of Louis XVIII., this bureau was abolished, and the employés being thus discharged, and, for the most part, returning to their own countries, a bureau, similar in purpose and construction, was established at Vienna by the late Emperor Francis.

The Inventor of the new Arcanographic System, here submitted to the public, has defied the Austrian and all other bureaux to deciper any instrument whatever - public, private, epistolary, or conventional—implied in his impenetrable mystery; and a very large reward, in 1831, was held out to any one who would then read a despatch disguised by this system. The Right Hon. Lord Viscount Palmerston, then, as now, Minister for Foreign Affairs, after declaring to the Inventor that "he had such clever fellows in his bureau, that he doubted not of being able to read a despatch so written," avowed, after three months' perseverance, "that it was totally beyond the powers of these 'clever fellows' interpretation; that they had pronounced it, and that he himself was satisfied, that the system was inscrutable." The improvements effected by the Inventor since that period, enable him now to offer it to the Public, to all States, and to all Classes, with the same advantages that, heretofore, he would have offered it to a single government.

### ADVANTAGES AND ADAPTATIONS.

This new method of Arcanography, or Secret Writing, will so effectually conceal the tenor of a correspondence, as to defy discovery from the ingenuity even of the ablest and most practised decipherers, and its advantages are both many and important; amongst the principal of which are—

- 1st. That it is not a cipher, and that it resembles nothing hitherto projected for the same purpose, being established upon mathematical principles, and presenting a series of such infinite combination, that no power of calculation can demonstrate, and that defies all possibility of detection or discovery.
- 2nd. That although so infinitely combined, it is so easy of comprehension, so simple in practice, and so quick in operation, that with half an hour's explanation or tuition, a child may be initiated and perfectly instructed in the method of its working.
- 3rd. That once acquainted with the system and method of its working, a despatch may be written and sent off in the trifling additional time of about five minutes per page, above what the same despatch would occupy, if written by ordinary means and in ordinary language.

- 4th. That it is equally available for all languages.
- 5th. That it may be adapted also to telegraphic purposes.
- 6th. That although so simple and easy, such is the complexity of its combination, that a person having even a perfect knowledge of the system and its method of working will be quite unable to decipher a despatch which might fall into his hands, not addressed directly to himself.
- 7th. That by the adoption of this system, a correspondence may be disguised by one-self alone; and a Minister, Secretary of State, or Ambassador, may cipher and decipher his own despatch, without either assistance or interference from another person; not practicable in the present system of disguised diplomatic correspondence, which necessarily requires, both for ciphering and deciphering, the employment of special interpreters, to whose mercy and discretion is sometimes committed the most important political event or secret, and consequently its disclosure or misrepresentation.
- 8th. That by the adoption of this system, a Minister, Ambassador, or other functionary, being enabled to disguise or read his own despatch (vide Art. 3), and which, when so disguised, a clerk may afterwards, if necessary, recopy without the possibility of reading or understanding what he copies, an enormous expenditure may be saved the Country by the abolition of the deciphering bureau, and the discharge of every decipherer now employed and paid by Government either at home or abroad.

Such are the public advantages to be derived from this discovery, and in private life the advantages are not less manifold, or less important.

In private life, we seal a letter that we either confide to the post or to a servant; and, until lately, the penalty of breaking a seal was, by the law, death; the law thus recognizing the extreme importance of secrecy in the transmission of correspondence. But when a letter once arrives at its destination, and is opened by the person to whom addressed, it is no longer protected against publicity; it is at the mercy of any one who may choose to pry into and read the contents. But a letter, written after the Arcanographic System, is proof against the curiosity of foreign or domestic post-offices—it baffles the conspiracy of interested parties—it may fall into the hands of enemies or friends—and in such hands, unless provided with the indispensable and lucid clue, which forms the very soul and safety of the system, that letter must remain a mere impenetrable cipher, undiscoverable by analogy, reference, or induction.

To the Sovereign, the Minister, the Ambassador, and the inferior order of Diplomatists—to the Capitalist and Banker—to Military Chieftains—the invaluable efficacy of such a system is so obvious as to render argument superfluous.

It may appear unnecessary, after so emphatic a declaration of the secrecy of such a system, to enlarge on its peculiar merits in that line of correspondence, which the mutual delicacy and affection of the sexes would protect from the intrusion of familiar solicitude. The tenderness of sentiment—the violence of ardent passion—the despondency of spirit—the various alternations of attachment, whether cherished or rejected, may safely, on the Arcanographic System, be committed to the exclusive apprehension of the individual to whom they are addressed. The deepest feelings of the heart may be expressively disclosed to those who only are concerned in their sincerity; and should accident, or preconcerted curiosity, effect an interception of the intercourse achieved by the infallible and trusty safeguard here submitted to the public, a meagre document alone—and but a meagre document—incapable of inference and illustration, would remain within the hands of interference, treachery, or folly.

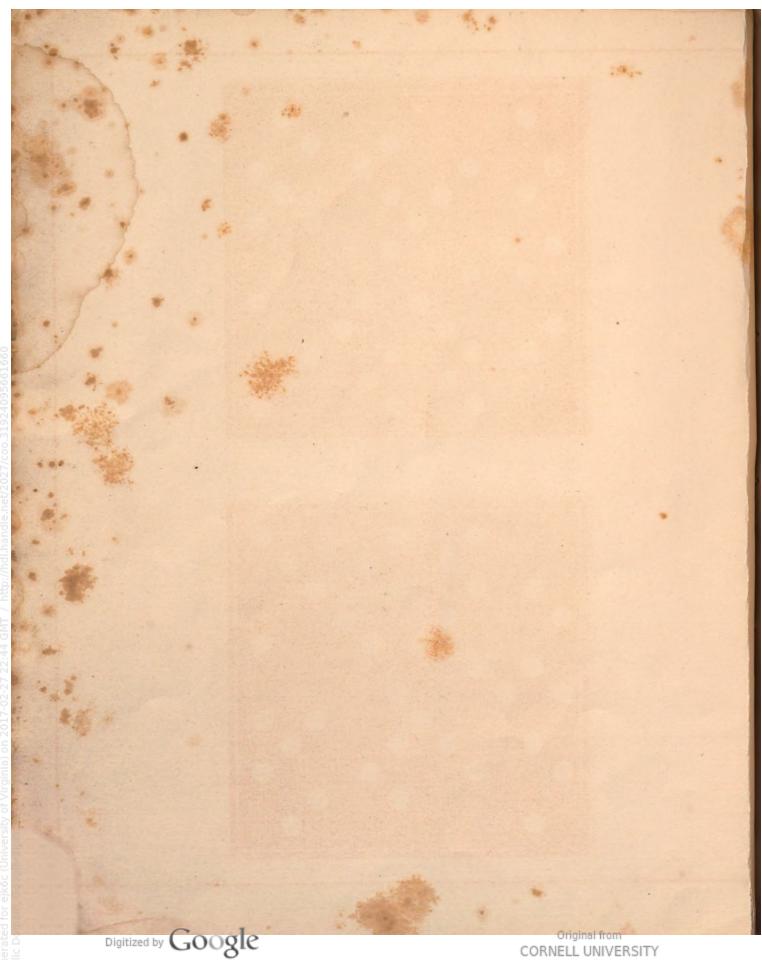
# DESCRIPTION OF PLATES, &c.

THE Arcanographic, or secret method of writing a despatch or letter, is effected by the application or use of Plates, which are represented in Plates No. 1, 2, and 3 of this work.

- PLATE 1, Figure A, is the under or regulating plate with key; regulating numbers along the top and bottom margins, and numbered from left to right from 11 upwards.
- PLATE 2, Figure B, is the upper or writing or reading plate, and this plate may be constructed in almost infinite variation, as regards the position of the circular perforations: but one plate presents sufficient variations to secure any letter written by it from being read by any person save the one to whom it is addressed. It contains two surfaces, better perhaps described as back and front—each surface containing four sides, making in all eight, and numbered from 1 to 8.
- B 2, Plate 2, is the reverse side or back surface of the same Plate B.
- B 3, Plate 3, is a reading and writing plate also, but with larger perforations or circular holes for the use of words instead of single letters; but let it be observed, that communications of extreme delicacy or importance, and requiring extraordinary secrecy, are better secured by using letter plates, even though demanding a little more time, than by using word plates.

E, is a spring clasp for the purpose of securing the paper to be written upon to the moveable slide C D.

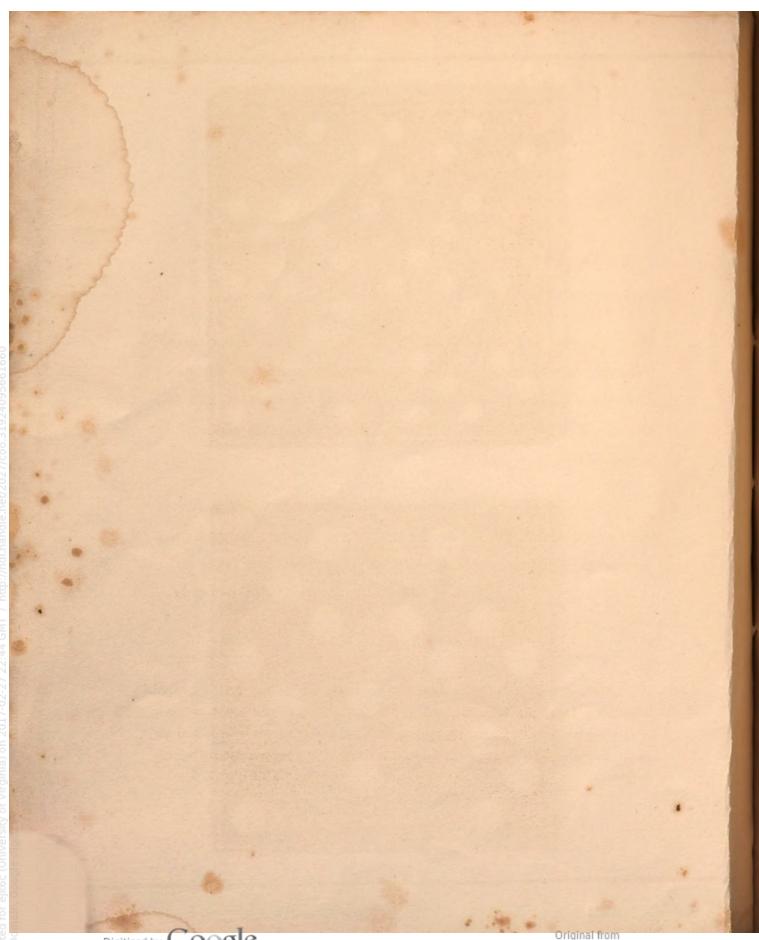
F, Plate 3, is the application of Plate B upon Plate A.



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### DIRECTIONS FOR USE.

Upon the slide C D of the Plate A, place a leaf of the ruled paper,\* extending at pleasure, from any one number upwards, to any other downwards.—Note the two extreme inclusive numbers of the slide thus covered by the paper, and secure the paper on the slide by the spring clasp E.

Shift according to your pleasure the moveable slide C D towards the right or left of the Plate A, write down the two extreme marginal numbers at the top and bottom of the Plate A, to which the paper inclusively extends. Write down these two numbers after the two already written down.

<sup>\*</sup> Sheets of ruled paper, corresponding with the Plates, may be had at all respectable booksellers and stationers, under the name of "Arcanographic Paper," and indeed are indispensably requisite in the use of the Arcanographic Plates; as the slightest deviation from the precise dimension of the squares, must be inevitably fatal to the purposes designed by this invention.

Then place Plate B upon Plate A, writing down that number of Plate B which is uppermost. Remark that each head of each side of Plate B is distinguished by a successive number from 1 to 8.

Then in every perforation, or circular hole, write one letter of the word, or one word of the sentence you wish to communicate, (according to whether the Plate used be for single letters, or for single words,) beginning as in the usual manner of writing, on the left, proceeding to the right; or vice versa, on the right, proceeding to the left; or upwards from the bottom, beginning at the left; or upwards from the bottom, beginning at the right; or downwards from the top, beginning at the left; or downwards from the top beginning at the right; but it is essentially requisite to communicate to your correspondent any manner of writing herein named, which you adopt, contrary to the first named, or usual manner of writing, viz. from left to right. This communication is signified by a symbol agreed upon between the correspondents, and conveyed with the key, which will be hereafter more fully explained.

When all the perforations are thus filled, transpose the Plate B, so that one of the then lateral numbers, right or left, become uppermost. For instance, if No. 1 be uppermost at first, by transposing the Plate B, either No. 2, or No. 4, become uppermost; or if No. 2 be first upper-

most, that by transposing the Plate B, No. 1, or 3, become uppermost; or if No. 3 be first uppermost, that by transposition, No. 2, or No. 4, become uppermost; or if No. 4 be first uppermost, that by transposition, No. 1, or No. 3, become uppermost.

Remark that you must always continue to turn the Plate one side of the square at a time, (as has been said and exemplified,) in the direction you have in the first place adopted; either to the left continually, or to the right continually.

Write down, in addition to the numbers already specified, (viz. those on the slide, those on the margin of the Plate A, and the first head number of Plate B in its first position,) the second head number of Plate B thus brought uppermost, by transposition. The key to be sent to your correspondent, will be, as to numbers, then complete, and will be composed of ten figures.\*

<sup>\*</sup> In this system, every unit is considered a figure; for instance, we say that the two extreme inclusive numbers of the slide, covered by the ruled paper, are 15 and 23, but there are four figures; again, that the same paper extending over the inclusive marginal numbers, reaches from 16 to 29, there are four more figures; in addition to these, you add No, 1, the head number of the Plate B, this makes nine figures; and transposing the Plate B, No. 1, having been the head number, No. 4, or No. 2, would become the second head number; and either of these added will make ten figures.

Upon the placing of the Plate B in this second position upon the Plate A, a fresh set of blank perforations or circular holes will be obtained. Write in these, as already described, from left to right, or otherwise, as explained, one letter or one word in each, till all are filled. Transpose the Plate B a third and fourth time to the right or left, according as in the first instance it was turned, repeating at each turn the same writing operations in the different circular holes, by which time the paper will be filled.\* Take the paper off the slide, and the disguised, but inscrutable, communication will be completed.

It may be then either sent as it is, on the very paper on which it is written, or which is better, the seemingly nonsensical jargon which will be presented, may be copied without regard to the number of letters or words placed in one line, but written right off; care, however, being had not to omit a letter or word.

With the despatch or letter must be sent the key already named, as upon this key depends the reading of the letter by the receiver, as will

<sup>\*</sup> If there are not letters or words, in the communication to be sent, sufficient to fill all the paper, the plate once used must be equally turned four times, and all the spare perforations filled with crosses, thus (×).

be hereafter explained. This key, however, may or may not (but had better not) be sent in figures. It can be disguised by the letters of a word or name, for that purpose previously agreed upon between the corresponding parties, which thus will admit of endless variation: for instance take the words and names

Henriette Sontag, Republican, Battle of Waterloo, Leontine Fay, Madame Vestris,

or any word or words producing ten, or even nine, different letters; but if only nine, a (×) or other symbol, agreed upon, must represent 0, or zero.

The repetition of any letter in the key is to be avoided, and therefore is omitted on its recurrence in the name or word, as usually spelled. Accordingly, the names and words selected as examples, would supply the following substitutes:

Henrit Soag 1 2 3 4 5 6 7 8 9 0 or Republican 1 2 3 4 5 6 7 8 9 0 The above two having each ten different letters, need no addition for 0 or zero; but the next three having only nine, a cross (×) must be appended for the 0 or zero, thus:

В	a	t	1	e	0	f	W	r	×
							8		
or									
L	e	0	n	t	i	F	a	y	×
1	2	3	4	5	6	7	8	9	0
or									
M	a	d	e	V		3	t r	i	×
1	2	3	4	5	(	3 7	7 8	9	0

In each case, the numerals, or rather their substitutes, so vary, that the key for 1428132765, if sent by the first would be *hreohnesti*; but by the last would be "mearm datsv."

It becomes immediately evident that the words or names for the key, may be varied ad infinitum; and as a general key throughout the kingdom for the transmission of the first disguised communication to be sent to any lady or gentleman, it is proposed where words or names for such purpose cannot be previously communicated or agreed upon, to either send the key in figures, or disguise the same by the christian or surname of the person addressed, and in this first disguised communication, it will be easy to settle and name the key-word for future communications.

In order to communicate the direction of writing, contrary to the ordinary manner, from the left proceeding to the right, any symbol may be agreed upon, such as an arrow or a finger pointing; then to signify that the despatch is written from right to left, the arrow would point , or upwards from the bottom, beginning at the left, \( \lambda \) appended to, and preceding the key; or upwards from the bottom, beginning at the right, \( \lambda \) appended to, and after the key; or downwards from the top, beginning at the left, \( \lambda \) appended to, and preceding the key; or downwards from the top, beginning at the right, \( \lambda \) appended to, and following the key; or five words agreed upon may signify the five different directions.

## TO READ A DISGUISED COMMUNICATION.

This operation is merely the reverse of the former, and is performed thus. The key is to be first written down: for instance, suppose "Madame Vestris" to be the key words, and the key sent to be "mearmdatsv;" then, as before, corresponding to the letters

Made Vstri×
will appear the numerals 1 2 3 4 5 6 7 8 9 0, and the key, above sent, will read, mearmdats v
1 4 2 8 1 3 2 7 6 5

The first eight numerals, in all keys, are to be taken out in pairs, thus—14, 28, 13, 27. The first two pair signify to the reader that the ruled paper is to extend on the slide C D from 14 to 28, inclusive; the second two pair signify that the paper is to extend along the marginal figures at top and bottom of the Plate from 13 to 27.

The size of the ruled paper being thus established, attach it by the clasp E to the moveable slide C D, and write off the seemingly nonsensical

jargon received, a word or a letter (accordingly as the reading plate used may be for words or letters) in each square, from left to right, in the same consecutive order as received, till the paper be full. Then take the reading and writing Plate B, and with the side, No. 6, upwards, as pointed out by the next number of the key, lay it over the ruled paper, according to directions already fixed upon the Plate.

Read through the circular perforations, from left to right, or otherwise, as by symbol signified, till all are read; then transpose the Plate B, so as to bring uppermost the next and last number of the key, No. 5. A fresh reading will be now had, and is to be repeated by transposing the Plate B, a third and fourth time, the same way from the last reading, (that is to the right or left,) as indicated for the first turning. When the plate has been turned four times, the whole reading will have been had, and the otherwise inscrutable despatch deciphered.

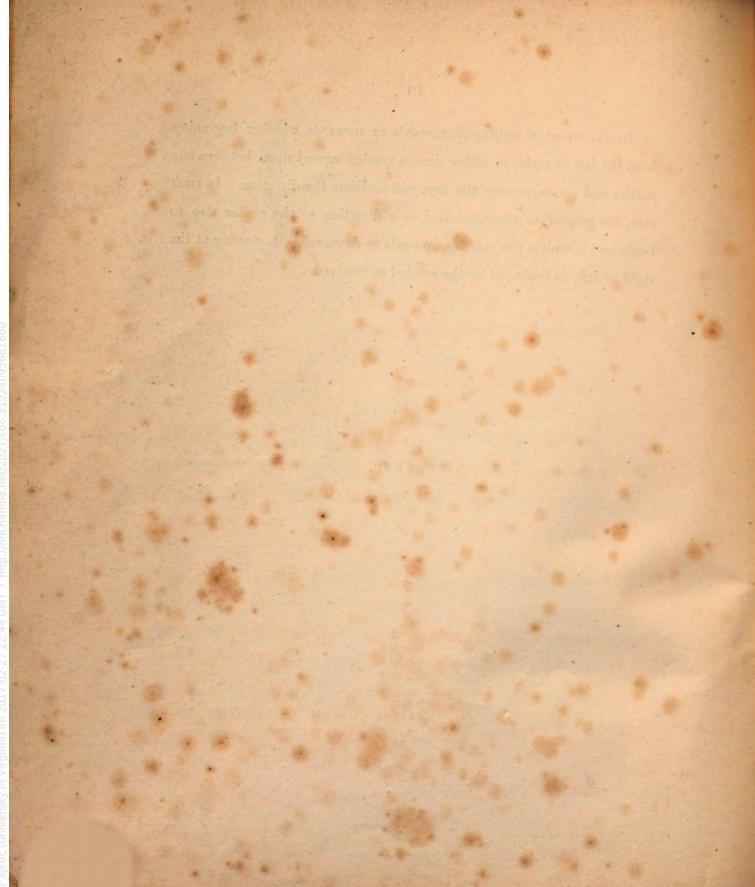
The endless variations, however, that may be effected on these Plates cannot in a short space, like the present, be developed in full. They will readily present themselves to the amateur, who uses this method of secret correspondence. A few may be enumerated, however, by stating that, although the writing in the circular holes or perforations is directed to be done from left to right, it is only so pointed out as being the most

ordinary and usual mode of writing, and, therefore, the easiest, at first, of explanation; but the writer is at liberty to write from right to left, or downwards, beginning at the left, or downwards, beginning at the right, or from the bottom upwards, beginning at the right or from the bottom upwards beginning at the left, or from left to right, or vice versá, beginning with the bottom row of circular holes. Then, again, each Plate having eight sides, numbered from 1 to 8, either of these eight sides may be at first brought uppermost, the three others of the same front or surface, following in succession, according to the will of the writer, as already described, nor must mention be omitted of the various, almost infinitely various re-acting and writing Plates that can be made, whether as regards the variety of their sizes; the variety as to the number of perforations in each Plate; or variety, as regards the position of those perforations; in each and all of which, the variety is almost infinite.

The shifting of the paper fixed on the moveable slide, be it of but one number, be it upon the moveable slide upwards or downwards, or be it upon the marginal figures leftward or rightward along the top or bottom of the Plate A, will give a different reading entirely to the despatch; and as upon the Letter Plate the variations are almost infinite, detection may be declared impossible.

In the event of writing downwards or upwards, whether beginning from the left or right, in either case, a symbol agreed upon between the parties and accompanying the key, will indicate the direction. In such case, the symbol so communicated, is a direction to the reader also to begin and complete the reading upwards or downwards, beginning at the right or left, as indicated by the symbol so received.

THE END.

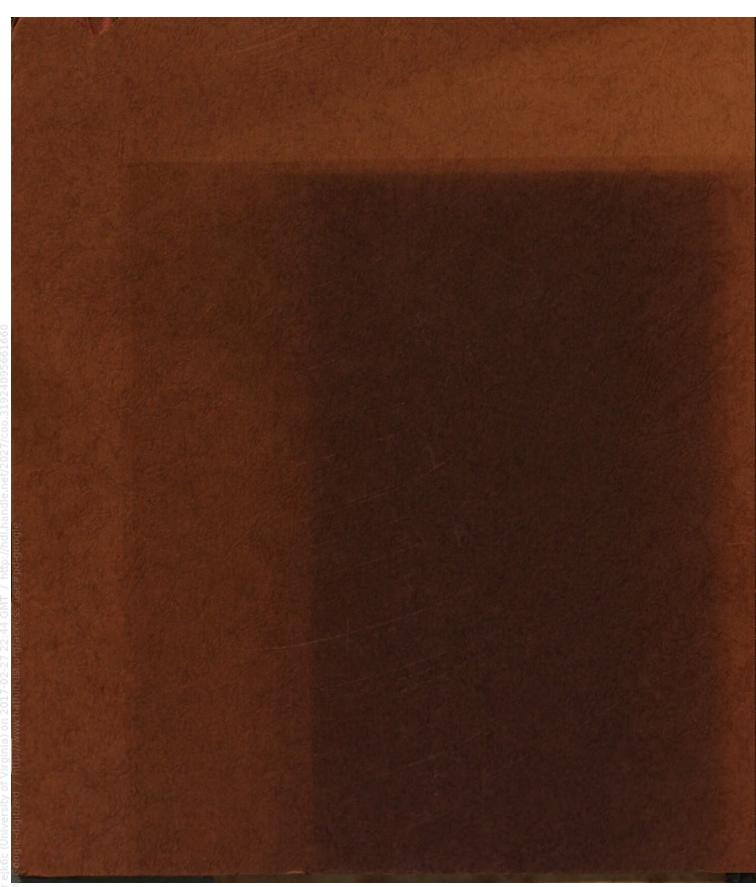




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