CLAIMS

[Claim 1]

An electronic mail delivery system, wherein:

a plurality of mail addresses specified as transmission destination or source of an electronic mail are simultaneously presented with parts of alphanumeric characters of the mail addresses presented as hidden latter parts when the electronic mail is delivered from a sending server of the electronic mail to a receiving server of the electronic mail via a communication network; and

the delivery of the electronic mail to the receiving server of the electronic mail is executed if a correct alphanumeric characters are entered in the hidden letter parts of the plurality of the mail addresses, and the delivery of the electronic mail to the receiving server of the electronic mail is stopped if the correct alphanumeric characters are not entered in the hidden letter parts of the mail addresses, and wherein:

when the plurality of the mail addresses are simultaneously presented with parts of the alphanumeric characters of the mail addresses presented as hidden latter parts, the alphanumeric characters are set as the hidden letter parts such that each of the plurality of mail addresses is not identical to any other of the plurality of mail addresses even if any alphanumeric character is entered into a column position expected to be the hidden letter part.

[Claim 2]

An electronic mail delivery system, wherein:

a plurality of mail addresses designated as transmission destination or source of an electronic mail are simultaneously presented with parts of alphanumeric characters of the mail addresses presented as hidden latter parts when the electronic mail is delivered from a sending server of the electronic mail to a receiving server of the electronic mail via a communication network; and

the delivery of the electronic mail to the receiving server of the electronic mail is executed if correct alphanumeric characters are entered in the hidden letter parts of the plurality of the mail addresses, and the delivery of the electronic mail to the receiving server of the electronic mail is stopped if the correct alphanumeric characters are not entered in the hidden letter parts of the mail addresses, and wherein:

when the plurality of the mail addresses are simultaneously presented with parts of the alphanumeric characters of the mail addresses presented as hidden latter parts, one or more hideable letters are extracted from a plurality of alphanumeric characters constituting the relevant mail address by a predetermined hidden letter part extraction logic, for each of the plurality of mail addresses, and then an alphanumeric character to be the hidden letter part is selected from the extracted hideable letters.

[Claim 3]

The electronic mail delivery system according to claim 2, wherein the hideable letter extraction logic follows a procedure of :

extracting all of mail addresses having the same number of letters from the plurality of mail addresses specified as transmission destinations or sources of the

electronic mail; and for each of the extracted mail addresses,

selecting one alphanumeric character in an arbitrary column position,

comparing the selected alphanumeric character with an alphanumeric character in the same column position of the other mail addresses,

setting the selected alphanumeric character as an unhideable letter if the same alphanumeric character as the selected alphanumeric character does not exist with respect to any other mail addresses, and

extracting as the hideable letters, a plurality of alphanumeric characters constituting the relevant mail address except the unhideable letter.

[Claim 4]

The electronic mail delivery system according to claim 2, wherein the hideable letter extraction logic follows a procedure of:

extracting all of mail addresses having the same number of letters from the plurality of mail addresses specified as transmission destinations or sources of the electronic mail; and for each of the extracted mail addresses,

selecting a combination of two or more alphanumeric characters in arbitrary column positions,

comparing the selected combination with a combination of two or more alphanumeric characters in the same column positions of the other mail addresses,

setting the selected combination of alphanumeric characters as unhideable letters if the same combination as the selected combination does not exist with respect to any other mail addresses, and

extracting as the hideable letters, a plurality of alphanumeric characters constituting the relevant mail address except the unhideable letters.

[Claim 5]

The electronic mail delivery system according to claim 2, wherein the hideable letter extraction logic follows a procedure of :

extracting all of mail addresses having the same number of letters from the plurality of mail addresses specified as transmission destinations or sources of the electronic mail; and for each of the extracted mail addresses,

selecting one alphanumeric character in an arbitrary column position,

comparing the selected alphanumeric character with an alphanumeric character in the same column position of the other mail addresses,

setting the selected alphanumeric character as an unhideable letter if the same alphanumeric character as the selected alphanumeric character does not exist with respect to any other mail addresses, and

extracting as the hideable letters, a plurality of alphanumeric characters constituting the relevant mail address except the unhideable letter; if no hideable letters is extracted,

extracting all of mail addresses having the same number of letters from the plurality of mail addresses specified as transmission destinations or sources of the electronic mail; and for each of the extracted mail addresses,

selecting a combination of two alphanumeric characters in arbitrary column positions,

comparing the selected combination with a combination of two alphanumeric characters in the same column positions of the other mail addresses,

setting the selected combination of alphanumeric characters as unhideable letters if the same combination as the selected combination does not exist with respect to any other mail addresses, and

extracting as the hideable letters, a plurality of alphanumeric characters constituting the relevant mail address except the unhideable letters; if no hideable letters is extracted,

operation to extract the hideable letters in the same manner with increasing the number of characters included in the selected combination one by one until it is determined that the same combination as the selected combination does not exist with respect to any other mail addresses.

[Claim 6]

An electronic mail delivery method, wherein:

a plurality of mail addresses specified as transmission destination or source of an electronic mail are simultaneously presented with parts of alphanumeric characters of the mail addresses presented as hidden latter parts when the electronic mail is delivered from a sending server of the electronic mail to a receiving server of the electronic mail via a communication network; and

the delivery of the electronic mail to the receiving server of the electronic mail is executed if a correct alphanumeric characters are entered in the hidden letter parts of the plurality of the mail addresses, and the delivery of the electronic mail to the receiving server of the electronic mail is stopped if the correct

alphanumeric characters are not entered in the hidden letter parts of the mail addresses, and wherein:

when the plurality of the mail addresses are simultaneously presented with parts of the alphanumeric characters of the mail addresses presented as hidden latter parts, the alphanumeric characters are set as the hidden letter parts such that each of the plurality of mail addresses is not identical to any other of the plurality of mail addresses even if any alphanumeric character is entered into a column position expected to be the hidden letter part.

[Claim 7]

An electronic mail delivery server, wherein:

a plurality of mail addresses specified as transmission destination or source of an electronic mail are simultaneously presented with parts of alphanumeric characters of the mail addresses presented as hidden latter parts when the electronic mail is delivered from a sending server of the electronic mail to a receiving server of the electronic mail via a communication network; and

the delivery of the electronic mail to the receiving server of the electronic mail is executed if a correct alphanumeric characters are entered in the hidden letter parts of the plurality of the mail addresses, and the delivery of the electronic mail to the receiving server of the electronic mail is stopped if the correct alphanumeric characters are not entered in the hidden letter parts of the mail addresses, and wherein:

when the plurality of the mail addresses are simultaneously presented with parts of the alphanumeric characters of the mail addresses presented as hidden latter parts, the alphanumeric characters are set as the hidden letter parts such that each of the plurality of

mail addresses is not identical to any other of the plurality of mail addresses even if any alphanumeric character is entered into a column position expected to be the hidden letter part.

[Claim 8]

An electronic mail delivery program, wherein:

a plurality of mail addresses specified as transmission destination or source of an electronic mail are simultaneously presented with parts of alphanumeric characters of the mail addresses presented as hidden latter parts when the electronic mail is delivered from a sending server of the electronic mail to a receiving server of the electronic mail via a communication network; and

the delivery of the electronic mail to the receiving server of the electronic mail is executed if a correct alphanumeric characters are entered in the hidden letter parts of the plurality of the mail addresses, and the delivery of the electronic mail to the receiving server of the electronic mail is stopped if the correct alphanumeric characters are not entered in the hidden letter parts of the mail addresses, and wherein:

when the plurality of the mail addresses are simultaneously presented with parts of the alphanumeric characters of the mail addresses presented as hidden latter parts, the alphanumeric characters are set as the hidden letter parts such that each of the plurality of mail addresses is not identical to any other of the plurality of mail addresses even if any alphanumeric character is entered into a column position expected to be the hidden letter part.

Claims

[Claim 1]

An electronic mail delivery apparatus to prevent an electronic mail from being delivered with its transmission or distribution destination's mail address mistaken, comprising:

a mail address hidden letter presentation unit to present the mail address with a part of the mail address presented as a hidden letter part; and

a selective mail delivery unit to execute delivery of the electronic mail to a receiving server of the electronic mail if a correct letter is entered in the hidden letter part of the mail address, and to stop delivery of the electronic mail to the receiving server of the electronic mail if the correct letter is not entered in the hidden letter part of the mail address.

[Claim 2]

The electronic mail delivery apparatus according to claim 1, further comprising a hidden letter selection unit to select a letter to be set as the hidden letter part by the mail address hidden letter presentation unit,

wherein the hidden letter selection unit selects the letter to be set as the hidden letter part such that, in a case where there are a plurality of mail addresses specified as transmission destinations or sources of the electronic mail, each of the plurality of mail addresses is not identical to any other of the plurality of mail addresses even if any letter is entered

into a column position expected to be the hidden letter part.

[Claim 3]

The electronic mail delivery apparatus according to claim 2, further comprising a hideable letter extraction unit to, in a case where there are a plurality of mail addresses specified as transmission destinations or sources of the electronic mail, extract, for each of the plurality of mail addresses, one or more hideable letters from a plurality of letters constituting the relevant mail address by a predetermined hidden letter part extraction logic,

wherein the hidden letter selection unit selects a letter to be the hidden letter part, from the hideable letters extracted by the hideable letter extraction unit.

[Claim 4]

The electronic mail delivery apparatus according to claim 3, wherein the hideable letter extraction unit:

extracts all of mail addresses having the same number of letters from the plurality of mail addresses specified as transmission destinations or sources of the electronic mail; and for each of the extracted mail addresses,

selects one letter in an arbitrary column position,

compares the selected letter with a letter in the same column position of the other mail addresses,

sets the selected letter as an unhideable letter if the same letter as the selected letter does not exist with respect to any other mail addresses, and

extracts as the hideable letters, a plurality of letters constituting the relevant mail address except the unhideable letter.

[Claim 5]

The electronic mail delivery apparatus according to claim 4, wherein the hideable letter extraction unit repeats operation to change the column position and compare the selected letter with a letter in the same changed column position of the other mail addresses, until determining that the same letter as the selected letter does not exist with respect to any other mail addresses.

[Claim 6]

The electronic mail delivery apparatus according to claim 3, wherein the hideable letter extraction unit:

extracts all of mail addresses having the same number of letters from the plurality of mail addresses specified as transmission destinations or sources of the electronic mail; and for each of the extracted mail addresses,

selects a combination of n letters (where n is a natural number) in arbitrary column positions,

compares the selected combination with a combination of letters in the same column positions of the other mail addresses,

sets the selected combination of letters as unhideable letters if the same combination as the selected combination does not exist with respect to any other mail addresses, and

extracts as the hideable letters, a plurality of letters

constituting the relevant mail address except the unhideable letters.

[Claim 7]

The electronic mail delivery apparatus according to claim 6, wherein the hideable letter extraction unit repeats operation to change the column positions and compare the selected combination with a combination of letters in the same changed column positions of the other mail addresses, until determining that the same combination as the selected combination does not exist with respect to any other mail addresses.

[Claim 8]

The electronic mail delivery apparatus according to claim 6 or 7, wherein operation to increase the number of characters n included in the selected combination and compare the selected combination with a combination of letters in the same changed column positions of the other mail addresses, is repeated until it is determined that the same combination as the selected combination does not exist with respect to any other mail addresses.

[Claim 9]

The electronic mail delivery apparatus according to claim 1 which is provided in an electronic mail delivery server.

[Claim 10]

An electronic mail delivery method that prevents an electronic mail from being delivered with its transmission or distribution destination's mail address mistaken, comprising:

presenting the mail address specified as the transmission or distribution destination of the electronic mail with a part of the mail address presented as a hidden letter part; and

executing delivery of the electronic mail to a receiving server of the electronic mail if a correct letter is entered in the hidden letter part of the mail address, and stopping delivery of the electronic mail to the receiving server of the electronic mail if the correct letter is not entered in the hidden letter part of the mail address.

[Claim 11]

A computer readable storage medium in which a computer program is stored, wherein the computer program prevents an electronic mail from being delivered with its transmission or distribution destination's mail address mistaken, by performing:

mail address hidden letter presentation processing to present the mail address specified as the transmission or distribution destination of the electronic mail with a part of the mail address presented as a hidden letter part; and

selective mail delivery processing to execute delivery of the electronic mail to a receiving server of the electronic mail if a correct letter is entered in the hidden letter part of the mail address, and to stop delivery of the electronic mail to the receiving server of the electronic mail if the correct letter is not entered in the hidden letter part of the mail address.