SELF SPACING TYPE.



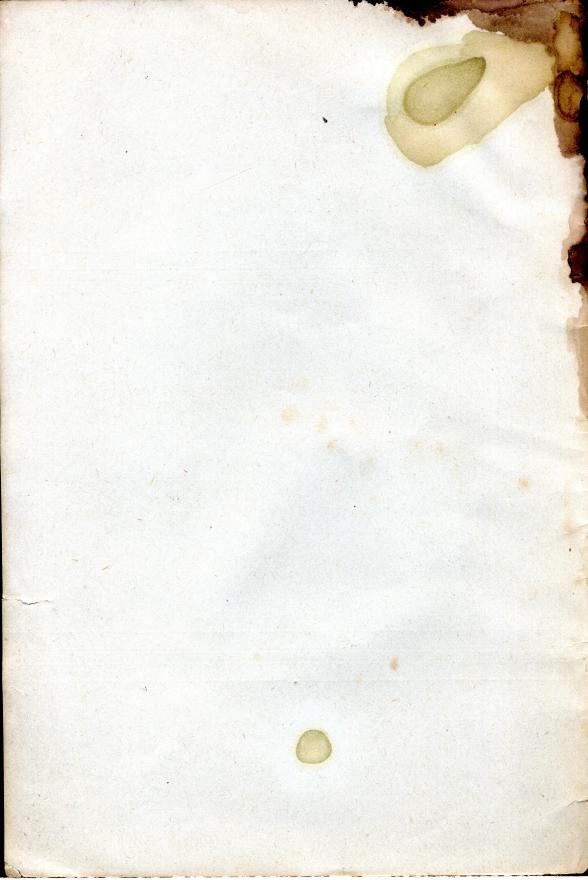
BENTON, WALDO & CO.,

Sole Manufacturers,

MILWAUKEE, WIS.

ST. PAUL, MINN.

g/ 3mg



At Paul fum Dec. 18, 86 Mef Benton, Haldo Vles, Milwanten: Hos, Gentlemen. In January, 1886, I put in a font of self spacing Mission (350 pounds) and I am glad to State to you that from the total amount of compaction of four compositions for sixty days, I estimate that the saving by increased composition was ignal to the whole cost of the type. This favorable showing has induced me to add to the affect, the month, 400 pains of self spacing Noupareil, to take the place of the Jame quantity yother Mujareil which could have been used for the work in how, and I have no doubt the showing atthe end of menety days work will be a net gain in time equal to the value of the font. Respectfully Banaley

BENTON'S SELF SPACING TYPE.

Among the users of our Patent Self Spacing Type may be found the following persons and firms, to any of whom we refer for opinions of the invention:

Pratt Brothers, Marlboro, Mass. Cramer, Aikens & Cramer, Milwaukee, Wis. Northwestern Newspaper Union, St. Paul, Minn. Western Newspaper Union, Omaha, Neb. Pratt Brothers, Marlboro, Mass.
Cramer, Aikens & Cramer, Milwaukee, Wis.
Northwestern Newspaper Union, Omaha, Neb.
Miner Publishing Co., Butte, Montana.
Brown, Treacy & Co., St. Paul, Minn.
Tribune Job Printing Co., Minneapolis, Minn.
L. B. & F. E. Noyes, Marinette, Wis., (burned out, ordered second lot.)
McGlachiln & Simons, Stevens Point, Wis.
Sioux Falls Pub. Co., Sioux Falls, Dak.
Minnesota Coffee and Spice Co., St. Paul, Minn.
Reporter Publishing Co., Oconto, Wis.
Fisk Brothers, Helena, Montana.
W. C. Thomas, Sheboygan Falls, Wis.
E. W. Viall & Co., (Daily Times) Oshkosh, Wis.
Pioneer Publishing Co., Janeaville, Wis.
Commonwealth Printing Co., Janeaville, Wis.
Commonwealth Printing Co., Janeaville, Wis.
Commonwealth Printing Co., Fond du Lac, Wis.
Bastian Bros., Fulton, Ill.
Johnson Bros. & Amos, Minneapolis, Minn.
Perry & Ervin, Fulton, Ill.
P. V. Deuster & Co., Milwaukee, Wis.
D. Ramaley & Son, St. Paul, Minn.
J. B. Henck, Longwood, Florida.
Augustana Book Concern, Rock Island, Ill.
Western Newspaper Union, St. Louis, Mo.
Dana & Stecketee, Muskegon, Mich.
J. G. Patterson, Edgerton, Wis.
W. G. Blymyer, Mansfield, Ohio.
Geo. W. Hopp, Brookings, Dak.
Sherman & Hutchins, Beaver Dam, Wis.
Ellsworth & Harmon, Ripon, Wis.
Kimball & Co., Minneapolis, Minn.
George Alderson & Son, Tomah, Wis.
E. C. Huntington, Windom, Minn.
J. S. Letford & Son, Lamberton, Minn.
F. M. Cornell, Tower City, Dak.
R. S. Toland, Cass City, Mich.
D. S. Johnson, Merrill, Wis.
Hamlin & Ingalls, Blue Earth City, Minn.
C. M. Hutchinson, Necedah, Wis.
Eli & C. E. Hooker, Waupun, Wis.
Journal Printing Co., Des Moines, Iowa.
Tuttle, Morehouse & Taylor, New Haven, Conn.
Edwin Hurlbut, Oconomowoc, Wis.
Ingersoll & Ely, St. Croix Falls, Wis.
W. H. Cannon, Merrill, Wis.
H. Weeks, Lewiston, Maine.
Geo. Schlosser, Blunt, Dak.
J. W. Chaffee, Marion, Iowa.

we refer for opinions of the invention

H. J. Lohmar, Wausau, Wis.
The Engel-Dreis Co., St. Paul, Minn.
S. H. Watson, St. Paul, Minn.
D. D. Donnan, Elkader, Iowa.
C. E. Davenport, South Otselic, N. Y.
E. O. Johnson, Hayward, Wis.
A. C. Voshardt, Kewaunee, Wis.
James Moore, Watertown, Wis.
James Moore, Watertown, Wis.
C. J. Wonzer, Tama, Iowa.
John D. Metz, Dubuque, Iowa.
C. A. Bennett, Gramite Falls, Minn.
W. L. Norris, Watertown, Wis.
J. H. Yewdale & Sons, Milwaukee, Wis.
The Labor Review, Milwaukee, Wis.
The Labor Review, Milwaukee, Wis.
H. D. Wing, Kaukauna, Wis.
Frank H. Brady, Clintonville, Wis.
W. E. Clarke, Manistique, Mich.
G. W. Barrows, Rapid City, Dakota.
Progress Publishing Co., Omaha, Neb.
F. E. Merrill, Freeport, Maine.
Baker, Collins & Co., St. Paul, Minn.
H. R. Curtis Printing Co., St. Paul, Minn.
C. D. Auyer, Little Falls, Minn.
Fell & Vroman, Lewiston, Mont. Ter.
W. G. Ashton, Wilmot, D. T.
W. O. Evans, Bellevue, Iowa.
E. B. Usher, La Crosse, Wis.
Mille Bunnell, Duluth, Minn.
L. H. Morehouse, Milwaukee, Wis.
C. P. Smith, Oconomowoc, Wis.
Frank Thornburg, Clinton, Iowa.
L. M. Hartwick, Pentwater Mich.
W. H. Peck, Platteville, Wis.
Journal Publishing Co., Helena, Montana.
H. N. Ross, Sheboygan, Wis.
A. F. Judd, Rockford, Wis.
U. B. Shaver, Kasson, Minn.
Bigelow Bros., Buffalo, N. Y.
Review & Herald, Battle Creek, Mich.
J. Dolph & Son, Eldora, Iowa.
E. L. Howe, London, Wis.
Oilver Bros., Waupun, Wis.
D. H. Winget, Clinton, Iowa.
Leroy M. Stringham & Co., Fredonia, N. Y.
Park & Kenny, Elkhorn, Wis.
Wm. B. Minahan, Chilton, Wis.
G. M. Myers, Lanark, Ill.
Burleson Bros., Pewaukee, Wis.
Burdick & Armitage, Milwaukee, Wis.
Godfrey & Crandall,
M. J. Cantwell, Madison, Wis.
E. B. Stillman, Jefferson, Iowa.
Omaha Litho. & Stationery Co., Omaha, Neb.
J. J. Cummings, Omaha, Neb.
A. P. Bradt, Oswego Falls, N. Y.
Unity Pub. Co., Providence, R. I.
Miller, Botsford & Co., Rockford, Ill.
H. O. Fifield, Menominee, Mich.

OTHER NAMES FURNISHED ON APPLICATION.

BENTON, WALDO & CO.,

Milwaukee, Wis.

St. Paul, Minn.

EXPLANATION

OF THE PRINCIPLE OF

BENTON'S SELF SPACING TYPE.

THE common widths of book pages, miscellaneous jobs and newspaper columns are some number of Pica ems, therefore the Pica em is taken as the basis for Self Spacing type. The thinnest space in all fonts is some exact fraction of a Pica, and this fraction of Pica is called the unit of measure. All characters, spaces and quads in the font are made some exact multiple of this unit in width, so that the sizes of all faces will work perfectly together in the regular labor-saving measures. This unit of measure may be one-sixth, oneseventh, one-eighth, one-ninth, one-tenth, etc. of a Pica em, as may be desired, to produce condensed, medium or extended faces. The following table gives the sizes of bodies, units of measure, and lengths of alphabets. In the first column will be found the various sizes of bodies; in the second, the number of units contained in one em Pica; and in the third the measurements of a lower case alphabet in the ems of each particular body:

Body.	Number Units to Pica em.	Length of Alphabet.
51/2 Point (Agate)	13	155%
51/2 Point (Agate)	12	167/8
6 Point (Nonpareil)	13	141/3
6 Point (Nonpareil)	12	151/2
6 Point (Nonpareil)	11	167/8
6 Point (Nonpareil)	10	185%
7 Point (Minion)	12	131/4
7 Point (Minion)	11	141/2
7 Point (Minion)	10	16
8 Point (Brevier)	10	14
8 Point (Brevier)	9	151/2
8 Point (Brevier)	8	171/2
9 Point (Bourgeois)	10	123%
9 Point (Bourgeois)	9	133/4
9 Point (Bourgeois)	8	151/2
10 Point (L'g Primer).	9	12%
10 Point (L'g Primer).	8	14
11 Point (Small Pica)	8	123/3
11 Point (Small Pica)	7	141/2
12 Point (Pica)	7 8 7	11%
12 Point (Pica)	7	131/4
12 Point (Pica)		151/2
	Daniel State of the State of th	ANNA DIGA

In the foregoing table will be noticed a Nonpareil with one-twelfth of Pica as the unit of measure. This is one sixth of the body of Nonpareil, or the six-to-em-space, which preserves in this particular font the old three-toem space and the old en and em quads. The same is true of the Brevier on one-ninth of Pica, the Bourgeois on one-eighth of Pica and the Pica on one-sixth of Pica.

The Minion on one-twelfth of Pica will have as its unit a seven-to-em-space, or one-seventh of the Minion body, and will set at right angles or work into squares of the body, as will also the Pica on one-seventh of Pica. The Nonpareil on one-tenth of Pica has the old five-to-em space of Nonpareil as its unit, and will work into squares of Nonpareil or Pica.

In a complete font of the old kind of body type there are about 190 widths of bodies. Appended is a table showing the different widths of bodies of Self Spacing Old Style. It will be readily seen that there are but nine widths of bodies all told, and that the four-unit width predominates largely over any other, there being fifty-nine characters of this width. We omit the Italic characters from the table as they all go on the same widths of bodies, and are interchangeable with the Roman:

1 unit —Space	. 1
1 unit —Space	
2 units-Space, f i j 1 , : ; '! I J ' .	16
3 units-Quad, cerstz?)] * † ‡ §	
¶ I J s z - °	44
4 units-Quad, a b d g h k n o p q u	
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v x y fi fl ff \$ £ 1 2 3 4 5 6	
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NOPQRTUVXY&)	
/ J { \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	59
5 units-æABCDEFGLNOPQ	
5 units—æ A B C D E F G L N O F Q	
RTUVYHKM	21
6 units-Quad, m et w ffi ffl œ H K X	
& W Æ Œ TO \$ @ 1/4 1/2	
34 1/3 2/3 1/8 3/8 5/8 7/8	20
94 1/3 1/3 1/8 1/8 1/8 1/8	40
7 units—M W	. 2
8 units—Æ Œ	2
	- 4
12 units—Quad, — @	5
9 sizes. Roman characters	
Italic charactters	77
Tource characters	
	233

In Roman fonts, except Old Style, there are but eight widths of bodies, the eight unit width being omitted.

Any compositor can see that no combination of units can be made that will not come within a certain number of exact units of filling a line. If a line of matter lacks, it must lack one or more exact units.

Self Spacing type sets line for line with the ordinary Roman, where the lengths of the alphabets are the same.

Repeated experiments with the new type have shown that the average compositor gains about twenty-five per cent. in speed, with no trouble in justification whatever. In the matter of the correction of proofs the gain is enormous. Say there is an "a" for an "e"; as "a" is four units wide and "e" three, "e" and a one-unit space justify the line perfectly. Even this measure of trouble is avoided in many instances. As twenty-six of the most common lower case characters are of the same width, they can be substituted for one another without the change of a space.

Another item worthy of consideration is the greater durability of the type. It is always on its feet, and therefore is not worn by "pounding."

In tabular work there is a great gain in speed and neatness. By the addition of a new character, viz: "|", it is easy to set perpendicular lines of any length, line upon line.

Self Spacing type does not require a conscious effort to master its principle—the compositor acquires intuitively and at once all that is necessary for the perfect use of the system. He is relieved of the mental process of spacing and justifying which he now goes through.

This system secures a proper relation between letters, spaces and figures. Under the present lack of system in the old kind of type, the three-em space and the en figure are used, no matter whether the face be expanded or compressed; in Self Spacing type every character and space will be increased or decreased in width relatively with the face of the type.

The italic letters have been made to harmonize with the Roman letters.

It may be repeated that the compositor has nothing to learn in handling the Self Spacing type. There is but a single direction to be given—to set that which looks like the em quad (six-unit quad) with the nick out.

Whoever will study the principle on which the Self Spacing type is based, will readily admit that it is bound to secure easy and perfect justification, greatly increased speed and consequent enormous saving, simplicity and rapidity of proof correction, and increased accuracy and ease in the setting of tables. All these points are beyond question, as certainly as the proposition that two and two make four is not open to argument. No rational person can doubt them.

	No.1	No 2	No 2	No. 4.	No E	No. 6	No 7
	NO. 1	10.2	NO. 5	No. 4.	NO. 5	NO. 6	NO. 1
	iland	1 & H	IDLE	saturday	i &H	Iland	'DLE
	smit	INK	SMW	is thmusy	sNK	smit	IMW
	brot	SLY	BAIT	ne vermet	dLY	Brot	SAIT
	sitly	ELS	MOK	Th ursd'y	si LS	Mtly	Еок
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To further explain and illustrate the ease with which table work is done with Self Spacing type, we show above an example of miscellaneous justifications, which is absolutely impossible to accomplish with the old kind of type. In column No. 1 the first line begins with the lower case "i", two units wide, which is followed by the upright dash "|", two units, and the characters "a", four units, "n", four units, "d", four units, comprising sixteen units to accurately fill the column. The second line begins with "s", three units wide, which throws the space rule one unit further to the right than in the preceeding line. In each succeeding line lower case characters are employed to the total width of sixteen units, and such characters are chosen for the first part thereof as will admit of advancing the space rule to the right exactly one unit in each succeeding line.

In column No. 2 the same plan is followed, the only change being the substitution of capital for lower case letters. No. 3 is also a repetition of the example with small cap characters.

The central column, No. 4, is thirty-one units wide, contains upper and lower case characters, and the space rule is carried to the right two units in each succeeding line.

In columns Nos. 5, 6, and 7, caps, small caps, lower case characters and figures are used promiscuously, all columns coming perfectly justified in lines perpendicularly at a width of sixteen units in each.

This piece of composition was done in a full measure stick, and set line upon line in the ordinary manner of straight reading matter.



5½-point (Agate) Self Spacing, No. 19½.

PAT'D DEC. 18, '88.

The unit of measure of this font is 12 to pica.

Roman, per pound, 80 cts.

Italic, per pound, 92 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification. In connection with the difficulty of distribution, this has been sufficient to prevent the general adoption of machines. It is evident that whatever device will overcome this obstacle will also simplify spacing and justification must increase the ease and speed of type setting by hand. This is done by Mr. Benton's Self Spacing type. Strictly speaking it doesn't space itself—but the spacing becomes a matter of such simplicity and accuracy that "self spacing" is the expression that comes to the lips of the compositor. The Self Spacing type was designed for the type setting machines, and it entirely overcomes the obstacle of hand justification. The most accuraci

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512-point (Agate) Self Spacing, No. 19.

PAT'D DEC. 18, '83.

The unit of measure of this font is 12 to pica.

Roman, per pound, 80 cts.

Italic, per pound, 92 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification. In connection with the difficulty of distribution, this has been sufficient to prevent the general adoption of machines. It is evident that whatever device will overcome this obstacle will also simplify justification in hand work; and as this is the check to speed in hand work, any means to simplify spacing and justification must increase the ease and speed of type setting by hand. This is done by Mr. Benton's Self Spacing type. Strictly speaking it doesn't space itself—but the spacing becomes a matter of such simplicity and accuracy that "self spacing" is the expression that comes to the lips of the compositor. The Self Spacing type was designed for the type

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6-point (Nonpareil) Self Spacing, No. 2012.

PAT'D DEC. 18, '83.

The unit of measure of this font is 12 to pica.

Roman, per pound, 68 cts.

Italic, per pound, 78 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification. In connection with the difficulty of distribution, this has been sufficient to prevent the general adoption of machines. It is evident that whatever device will overcome this obstacle will also simplify justification in hand work; and as this is the check to speed in hand work any means to simplify spacing and justification must increase the ease and speed of type setting by hand. This is done by Mr. Benton's Self Spacing type. Strictly speaking it doesn't space itself—but the spacing becomes a matter of such simplicity and accuracy that "self spacing" is the expression that comes to the lips of the compositor. The Self Spacing type was designed for the type s

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6-point (Nonpareil) Self Spacing, No. 20.

PAT'D DEC. 18, '83.

The unit of measure of this font is 12 to pica.

Roman, per pound, 68 cts.

Italic, per pound, 78 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type settenormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification. In connection with the difficulty of distribution, this has been sufficient to prevent the general adoption of machines. It is evident that whatever device will overcome this obstacle will also simplify spacing and justification must increase the ease and speed of type setting by hand. This is done by Mr. Benton's Self Spacing type. Strictly speaking it doesn't space itself—but the spacing becomes a matter of such simplicity and accuracy that "self spacing" is the expression that comes to the lips of the compositor. The Self Spacing type was designed for the type setting machines, and it entirely overcomes the obstacle of hand justification. The most accurate justification can be done by the machine when this type is used. Naturally, it simplifies the wo

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7-point (Minion) Self Spacing, No. 2312.

PAT'D DEC. 18, '83.

The unit of measure of this font is 11 to pica.

Roman, per pound, 60 cts.

Italic, per pound, 70 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting have been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification. In connection with the difficulty of distribution, this has been sufficient to prevent the general adoption of machines. It is evident that whatever device will overcome this obstacle will also simplify justification in hand work; and as this is the check to speed in hand work, any means to simplify spacing and justification must increase the ease and speed work, any means to simplify spacing and justification must increase the ease and speed

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7-point (Minion) Self Spacing, No. 23.

PAT'D DEC. 18, '83.

The unit of measure of this font is 11 to pica.

Roman, per pound, 60 cts.

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Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification. In connection with the difficulty of distribution, this has been sufficient to prevent the general adoption of machines. It is evident that whatever device will overcome this obstacle will also simplify justification in hand work; and as this is the check to speed in hand work, any means to simplify spacing and justification must increase the ease and speed work, any means to simplify spacing and justification must increase the ease and speed work, any means to simplify spacing and justification must increase the ease and speed

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8-point (Brevier) Self Spacing, No. 1812.

PAT'D DEC. 18, '83.

The unit of measure of this font is 10 to pica.

Roman, per pound, 55 cts.

Italic, per pound, 65 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting have been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification.

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8-point (Brevier) Self Spacing, No. 18.

PAT'D DEC. 18, '83.

The unit of measure of this font is 10 to pica.

Roman, per pound, 55 cts.

Italic, per pound, 65 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting have been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification.

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9-point (Bourgeois) Self Spacing, No. 3212.

PAT'D DEC. 18, '83.

The unit of measure of this font is 9 to pica.

Roman, per pound, 50 cts.

Italic, per pound, 60 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, new logotypes is not to be regarded as a serious effort to gain in speed,

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9-point (Bourgeois) Self Spacing, No. 32.

PAT'D DEC. 18, '83.

The unit of measure of this font is 9 to pica.

Roman, per pound, 50 cts.

Italic, per pound, 60 cts.

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10-point (Long Primer) Self Spacing, No. 1712.

PAT'D DEC. 18, '83.

The unit of measure of this font is 8 to pica.

Roman, per pound, 48 cts.

Italic, per pound, 56 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the perfecting of type setting machines rather than the improvement of the art

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10-point (Long Primer) Self Spacing, No. 17.

PAT'D DEC. 18, '83.

The unit of measure of this font is 8 to pica.

Roman, per pound, 48 cts.

Italic, per pound, 56 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the perfecting of type setting machines rather than the improvement of the art

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11-point (Small Pica) Self Spacing, No. 2112.

PAT'D DEC. 18, '83.

The unit of measure of this font is 7 to pica.

Roman, per pound, 46 cts.

Italic, per pound, 52 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same

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11-point (Small Pica) Self Spacing, No. 21.

PAT'D DEC. 18, '83.

The unit of measure of this font is 7 to pica.

Roman, per pound, 46 cts.

Italic, per pound, 52 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same

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12-point (Pica) Self Spacing, No. 3112.

PAT'D DEC. 18, '83.

The unit of measure of this font is 7 to pica.

Roman, per pound, 44 cts.

Italic, per pound, 50 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting, and

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12-point (Pica) Self Spacing, No. 31.

PAT'D DEC. 18, '83.

The unit of measure of this font is 7 to pica.

Roman, per pound, 44 cts.

Italic, per pound, 50 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and

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6-point (Nonpareil) Self Spacing Old Style, No. 27.

PAT'D DEC. 18, '83.

The unit of measure of this font is 11 to pica.

Roman, per pound, 68 cts.

Italic, per pound, 78 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting have been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification. In connection with the difficulty of distribution, this has been sufficient to prevent the general adoption of machines. It is evident that whatever device will overcome this obstacle will also simplify justification in hand work; and as this is the check to speed in hand work, any means to simplify spacing and justification must increase the ease and speed of type setting by hand. This is done by Mr. Benton's Self Spacing type. Strictly and accuracy that "self spacing" is the expression that comes to the lips of the compositor. The Self Spacing type was designed for the type setting machine, and it entirely overcomes the obstacle of hand justification. The

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8-point (Brevier) Self Spacing Old Style, No. 22.

PAT'D DEC. 18.'83.

The unit of measure of this font is 10 to pica.

Roman, per pound, 55 cts.

Italic, per pound, 65 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting have been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain in speed, since the adoption of any number would prove only an annoyance instead of a help, through the confusion arising from the great multiplication of characters, and the necessary re-arrangement of the case. One of the supreme obstacles in the way of the success of type setting machines has been the necessity of hand justification. Man is waited, night and day, waking and sleeping, at least twenty miles per

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9-point (Bourgeois) Self Spacing Old Style, No. 28.

PAT'D DEC. 18, '83.

The unit of measure of this font is 9 to pica.

Roman, per pound, 50 cts.

Italic, per pound, 60 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting have been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new logotypes is not to be regarded as a serious effort to gain speed, since the adoption of any number would be only an annoyance instead

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10-point (Long Primer) Self Spacing Old Style, No. 24.

PAT'D DEC. 18, '83.

The unit of measure of this font is 8 to pica.

Roman, per pound, 48 cts.

Italic, per pound, 56 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow and laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting have been directed toward the perfecting of type setting machines rather than the improvement of the art of hand setting. The attempt to introduce new

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11-point (Small Pica) Self Spacing Old Style, No. 25.

PAT'D DEC. 18, '83.

The unit of measure of this font is 8 to pica.

Roman, per pound, 46 cts.

Italic, per pound, 52 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting and mailing. Increased speed in the setting of the same quantity of matter has been secured only by the multiplication of cases. All efforts to promote speed and economy in type setting has been directed toward the per-

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12-point (Pica) Self Spacing Old Style, No. 26.

PAT'D DEC. 18, '83.

The unit of measure of this font is 7 to pica.

Roman, per pound, 44 cts.

Italic, per pound, 50 cts.

Perhaps in no art has there been so little progress in four centuries as in the art of type setting. The machines, some of which are in use, are still inefficient, and the greater part of the enormous and increasing quantity of type used is set as type was set four hundred years ago. If Franklin could come from among the shades, and take his place before the case, he would have nothing to learn. There has been no development of the art to correspond with the evolution of the marvelous perfecting presses of to-day from the slow, laborious hand presses of half a century ago, or with the growth of the art of stereotyping, folding, pasting, and

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Self Spacing Old Style Italic.

DESIGN PATENT APPLIED FOR.

Circular Font.

8-Point (Brevier) Old Style Italic, No. 22.

\$5.40

GAIN OF FOUR COMPOSITORS EQUAL TO COST OF TYPE.

In January, 1886, I put in a font of Self Spacing and I am glad to state to you that from the total amount of composition of four compositors for sixty days, I estimate that the saving by increased composition was equal to the whole cost of the type. This favorable showing has induced me to add to the office, this month

Circular Font.

9-Point (Bourgeois) Old Style Italic, No. 28.

\$4.80

FOUR HUNDRED POUNDS MORE SELF SPACING

In January, 1886, I put in a font of Self Spacing and I am glad to state to you that from the total amount of composition of four compositors for sixty days, I estimate that the saving by increased composition was equal to the whole cost of the type. This favorable showing has induced

Circular Font.

10-Point (Long Primer) Old Style Italic, No. 24.

\$4.45

SAVES THE WHOLE COST OF THE TYPE.

In January, 1886, I put in a font of Self Spacing and I am glad to state to you that from the total amount of composition of four compositors for sixty days, I estimate that the saving by increased composition was equal to the whole cost of the type. This

Circular Font.

11-POINT (SMALL PICA) OLD STYLE ITALIC, No. 25.

\$4.20

GLOBE JOB ROOMS---SAINT PAUL.

In January, 1886, I put in a font of Self Spacing and I am glad to state to you that from the total amount of composition of four compositors for sixty days, I estimate that the saving by increased composition was equal to the whole cost of the type.

Circular Font.

12-Point (Pica) Old Style Italic, No. 26.

\$3.95

A RED LETTER---DO NOT READ IT.

In January, 1886, I put in a font of Self Spacing and I am glad to state to you that from the total amount of composition of four compositors for sixty days, I esti-

SPACES AND QUADS ARE INCLUDED WITH EACH FONT.

SPECIMENS OF TABLE WORK Composed as Straight Matter Across the Column.

No Brass Rules used Except Adv. Rules at Top and Bottom.

Chicago & North-Western RAILWAY.

For Maps, Time Cards and Sleeping Car accommodations apply at 102 Wisconsin Street, or at Depot, foot of Wisconsin Street, on Lake Shore.

Chicago Express	-		
Chicago Parlor Car Exp.		LEAVE.	ARRIVE.
Chicago Parlor Car Exp.	Chicago Express		
Chicago Parlor Car Exp., * 1:00 p. M. †11:00 A. M. Chicago Parlor Car Exp., * 1:15 p. M. † 2:30 p. M. Pacific Fast Line	Chicago Parlor Car Exp		
Chicago Parlor Car Exp., * 1:00 p. M. †11:00 A. M. Chicago Parlor Car Exp., * 1:15 p. M. † 2:30 p. M. Pacific Fast Line	Chicago Parlor Car Exp	†11:00 A. M.	† 6:00 P. M.
Chicago Parlor Car Exp.		* 1:00 P. M.	†11:00 A. M.
Omaha Night Express	Chicago Parlor Car Exp	† 4:15 Р. М.	† 2:30 P.M.
Denver Express	Pacific Fast Line	+ 7:30 A. M.	† 6:00 P. M.
Denver Express	Omaha Night Express	† 4:15 P. M.	†11:00 A. M.
Denver Short Line		† 7:30 A. M.	† 6:30 р. м.
Sio'x City'&N.E.N'br'ska	Denver Short Line	† 4:15 Р. М.	†11:00 A. M.
Des Moines Day Express.	Sio'x City&N.E.N'br'ska	† 7:30 A. M.	† 6:00 P.M.
Des Moines Night Exp	Sio'x City&N.E.N'br'ska		
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Winona & La Crosse Ex., †11:25 a. M. † 4:25 p. M. Galena & Montford Exp. †11:25 a. M. † 4:25 p. M. Madison Express			
Galena & Montford Exp. †11:25 a. M. † 4:25 p. M. Madison Express			
Madison Express			
Madison Express			
Madison Express			
Waukesha Express			
Waukesha Express	Madison Express		
Waukesha Express † 6:20 p. M. † 9:15 p. M. Fond du Lac & G.B'y Ex. † 7:30 a. M. † 7:20 p. M. Gr'n Bay & Marin't'e Ex. † 2:55 p. M. † 10:40 a. M. Gr'n Bay & Marin't'e Ex. † 2:55 p. M. † 10:40 a. M. F'nd duL'c&Oshk'sh Ex. † 2:55 p. M. † 10:40 a. M. F'nd duL'c&Oshk'sh Ex. * 12:15 a. M. * 2:55 a. M. F'nd duL'c&Oshk'sh Ex. * 12:15 a. M. * 2:55 a. M.			
Fond du Lac & G. B'y Ex. † 7:30 a. M. † 7:20 p. M. Gr'n Bay & Marin't'e Ex. † 2:55 p. M. † 10:40 a. M. Gr'n Bay & Marin't'e Ex. * *12:15 a. M. * 2:55 a. M. F'nd du L'c & Oshk'sh Ex. † 2:55 p. M. † 10:40 a. M. F'nd du L'c & Oshk'sh Ex. *12:15 a. M. * 2:55 a. M.			
Gr'n Bay & Marin't'e Ex. † 2:55 p. m. †10:40 a. m. Gr'n Bay & Marin't'e Ex. *12:15 a. m. * 2:55 a. m. F'nd duL'c&Oshk'sh Ex. † 2:55 p. m. †10:40 a. m. F'nd duL'c&Oshk'sh Ex. *12:15 a. m. * 2:55 a. m.	Waukesha Express		
Gr'n Bay & Marin't'e Ex. *12:15 a. m. * 2:55 a. m. F'nd duL'c&Oshk'sh Ex. † 2:55 p. m. †10:40 a. m. F'nd duL'c&Oshk'sh Ex. *12:15 a. m. * 2:55 a. m.			
F'nd duL'c&Oshk'sh Ex. † 2:55 p. m. †10:40 a. m. F'nd duL'c&Oshk'sh Ex. *12:15 a. m. * 2:55 a. m.			
F'nd duL'c&Oshk'sh Ex. *12:15 A. M. * 2:55 A. M.	Gr'n Bay & Marin't'e Ex.		
		† 2:55 P. M.	
Lake Superior Night Ex. *12:15 A. M. * 2:55 A. M.	Lake Superior Night Ex	*12:15 A. M.	* 2:55 A. M.

PRICE LIST OF LOCKS.

No.	Doz.	Width.	Kinds to the dozen.	Black Japanned.
79 101 99 123	$\begin{array}{r} - \\ \$1.25 \\ 1.80 \\ 2.00 \\ 3.00 \end{array}$	31/2 "	3 3 3 2	Brass Bushed. "" " 2 Secure Levers, Brass Bushed, Flat Key.
				Red Japanned.
85 116 114 088 122 108	3.50 3.75 4.25 5.00 4.75	3 " 3½ " 4 " 4 " 4½ "	3 3 3 3 2 4	Brass Bushed. 2 Secure levers, flat key.
$111 \\ 118 \\ 124$	4.50 5.50 6.00	4 " 4¾ " 4¾ "	$\begin{array}{c} 4\\ 3\\ 3\\ 2 \end{array}$	2 Secure levers, flat key.

METEOROLOGICAL REPORT.

			Wind.		1	
STATIONS.	Bar.	Th.				Weath'r
			D.	Vel	fall.	
Milwaukee	29.95		s w	13		Clear.
Albany, N. Y	30.22		SW	Lt.		Clear.
Bismarck, Dak.	29.16	56		6		Thre't'g
Buffalo, N. Y	30.13	54		6		Clear.
Cairo, Ill	30.07	65		Lt.		Clear.
Cheyenne, Wy	30.03	52	S	10		Clear.
Chicago, Ill	30.01	57	S	8		Clear.
Cincinnati, O	30.12	60		c'm		Clear.
Cleveland, O	30.10	52	SE	Lt.		Clear.
Detroit, Mich	30.07		SE	6		Clear.
Duluth, Minn	29.66	62	S W	16		Fair.
Erie, Pa	30.13	55	S	12		Clear.
Escanaba, M'h.	29.81	56		_16		Fair.
Ft. Custer, Mon		55		Lt.		Fair.
Ft.Garry, Mon.	29.59	44		7		Fair.
Grand Haven	30.00	59		13		Fair.
Helena, Mon	29.96	44		Lt. 12		Fair.
Kingston, Can.	$\frac{30.08}{29.86}$	58	SW	12		Smoky. Clear.
La Crosse, Wis. Leavenworth	29.94	59		8		Clear.
Mackinac, M'h.	29.89		SW	8		Fair.
Marquette, M'h			SW	9		Clear.
New Orleans	30.00			c'm		Clear.
Omaha, Neb		62		20		Clear.
Oswego, N. Y		57		14		Clear.
Parry Sound		Company of the Second	s w	10	The same of the sa	Fair.
Port Huron		53		9		Clear.
Rochester, N. Y	20.13	52	s w	9	.00	Clear.
St. Paul, Minn		61	s	11	.00	Fair.
Sandusky, O			sw	10	27	Clear,
Toledo, O				Lt.		Clear.
Toronto, Can		47	s w	6		Foggy.
Vicksburg, Miss	State of the Control	61		Lt.	The state of the s	Clear.
Yankton, Dak.	29.67	69	s w	22	.00	Cloudy.

The lower part of above table is leaded to show the method of setting.

COMMERCIAL.—STATISTICS AND TRADE.

ARTICLES.	Rece	ipts.	Shipments.		
ARTICLES.	1884.	1883.	1884.	1883.	
Flour, bbls	18,188	28,894	24,205	27,239	
Wheat, bu	116,705	36,542		101,425	
Corn, bu	960	4,760		1,000	
Oats, bu	14,350	14,534	900	1,100	
Barley, bu	28,700	55,156	37,646	55,936	
Rve, bu	1,910	1,951			
Malt, bu	817		5,220	900	
Peas, bu			2,865	1,315	
Potatoes, bu	6,240	2,450	3,600	1,600	
Timothy, fbs.	24,000	120,000		120,000	
Flaxseed.fbs.	178,000	999,999		960,000	
Hops, bales		62	20	6	
Hides, No	310	2,679		1,000	
Cattle, head.	829	1,236	327		
Sheep, head	149	588	35	344	
Live hogs, No	2.061	1.104	122	550	
Butter, ibs	7,060	26,680		21,930	
Eggs, pkgs		51	8	12	

Nonpareil Self Spacing Roman, No. 15.

SUPERIOR GOODS.

We base the claim for SUPERIORITY OF GOODS OF OUR MANUFACTURE on the fact that we have made *more* and *greater* improvements in type and type making, in the past four years, than all the type founders of the United States combined, during a period of fifty years. Among them we mention the following:

IMPROVED TYPE MACHINES AND METAL POTS—That greatly improve the QUALITY and increase the QUANTITY of type produced in a given time, making it possible and practicable to use one mold for any number of consecutive hours without stopping to allow it to "cool off." Possessed by no other foundry.

PATENT IMPROVED TYPE MOLDS—That will cast thousands of pounds of any given character, and the last be EXACTLY the size of the first one cast in same mold. Possessed by no other foundry, and we challenge ANY house to produce like results.

PATENT IMPROVED LEAD AND SLUG MACHINE—By the aid of which one man will produce more perfect 6-to-pica leads, 16 inches long, in ten hours, than ten men can produce in the same time by the old method. A feat that cannot be equalled by any house other than our own and those to whom we have granted the right to use our patented machinery.

PATENT PUNCH ENGRAVING MACHINE—For cutting new faces. The only machine in the world for cutting type, borders, etc., from large drawings and patterns, in more perfect form than can be produced by any other foundry. Type cut by our new process, with sharp bevels and deep counters, will wear at least 25 per cent. longer than any other type made. All of our Self Spacing faces are cut by this process, and we challenge the world to produce their equal.

BENTON'S PATENT SELF SPACING TYPE.

The most important advance in printing type in four centuries: A type which increases the speed of the compositor 25 per cent., and completely revolutionizes the principle of type making.

IMPROVED FURNACES AND METAL MIXERS—Used only by us, for mixing our alloys of lead, tin, copper and antimony, with special reference to the chemical affinity of each, and so arranged that each metal can be subjected to the proper temperature to make a thorough admixture and perfect union of all ingredients an absolute certainty. Our celebrated Durable Metal is noted for its uniform and lasting qualities, and as no old metals are ever used in its compounding, our customers can rely upon receiving the very best at all times.



