

Dec. 14, 1943.

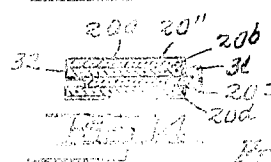
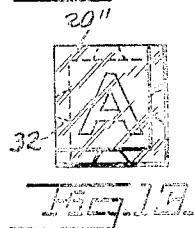
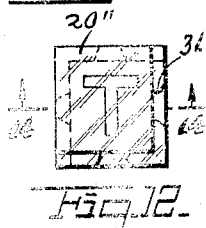
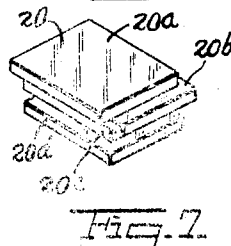
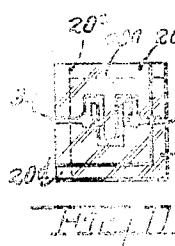
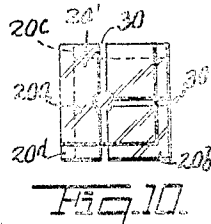
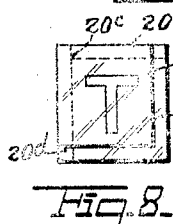
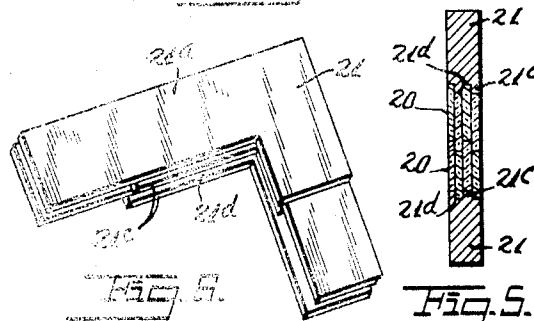
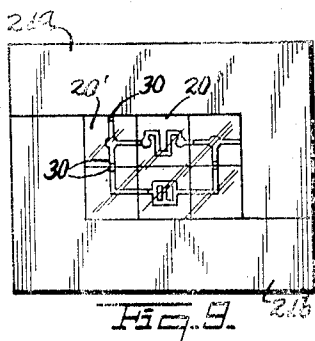
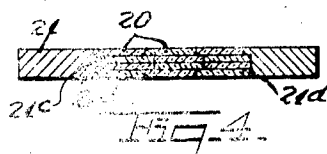
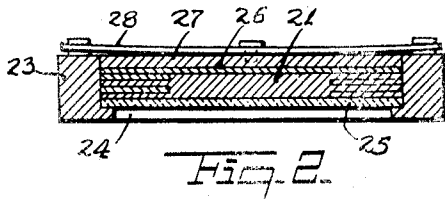
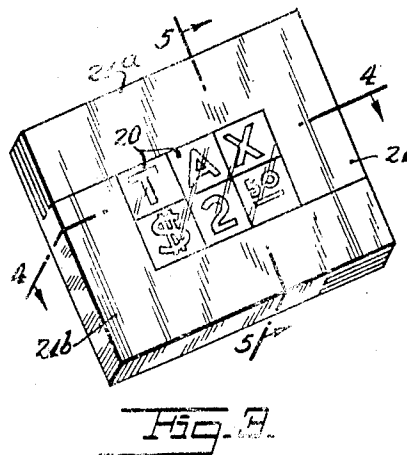
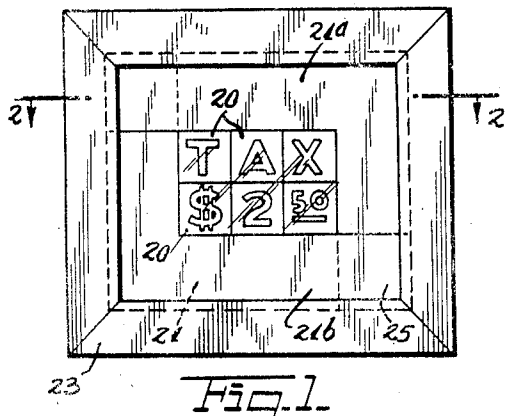
F. LITTY

2,336,489

PHOTOGRAPHIC PRINTING TYPE

Original Filed May 2, 1940

2 Sheets-Sheet 1



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Dec. 14, 1943.

F. LITTY

2,336,489

PHOTOGRAPHIC PRINTING TYPE

Original Filed May 2, 1940

2 Sheets-Sheet 2

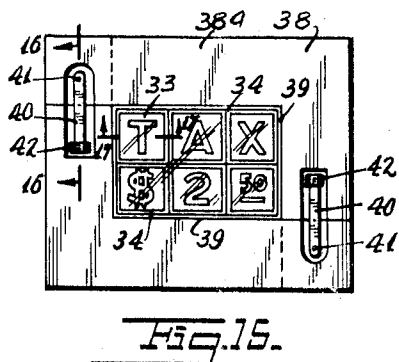


Fig. 15.

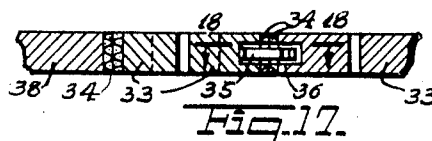


Fig. 17.

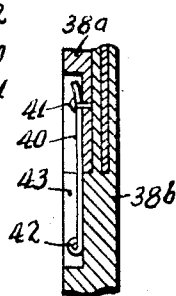


Fig. 16.

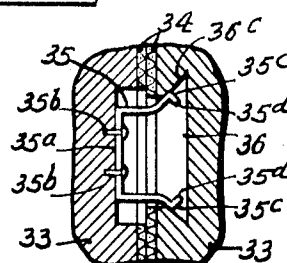


Fig. 18.

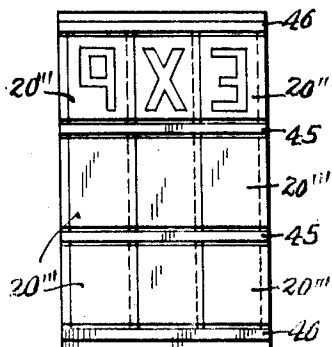


Fig. 20.

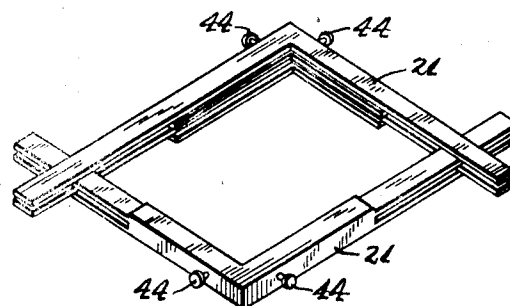


Fig. 19.

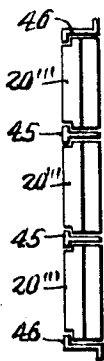


Fig. 21.

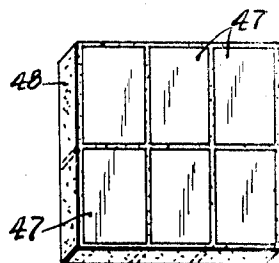


Fig. 24.

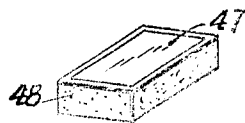


Fig. 25.

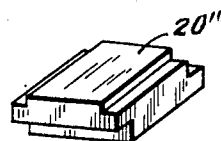


Fig. 22.

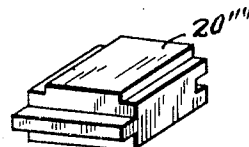


Fig. 23.

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UNITED STATES PATENT OFFICE

2,336,489

PHOTOGRAPHIC PRINTING TYPE

Fred Litt, Laurelon, Long Island, N. Y.

Substituted for abandoned application Serial No.
332,915, May 2, 1940. This application July
27, 1942, Serial No. 452,510

5 Claims. (Cl. 95—85)

This invention relates to new and useful improvements in photographic printing type. This application is a substitute for my abandoned patent application filed on May 2, 1940, Serial Number 332,915.

The invention has for an object the construction of type which may be assembled and photographically printed or printed with light sensitive materials. Specifically, the invention contemplates so arranging the type that positive film, or tracing, or other recordings may be made from the type, and so that prints may be made from these positives.

Still further the invention proposes to characterize the photographic printing type by the fact that it is composed of a plurality of transparent or translucent blocks having the reverse negatives of symbols or letters, or numerals or drawings, or pictures, or blank spaces on their face.

Another object of the invention resides in the provision of a novel means associated with the edges of the blocks mentioned in the previous paragraph for connecting them together to build up a composition of said blocks.

The blocks, in accordance with the invention, are designed for type setting and may be composed to make up words, sentences, posters, drawings, diagrams and combinations of such compositions. After photographic or other prints have been made from a composition of the blocks, the blocks may be returned to supply bins and are ready to be used for other compositions.

The printing from the photographic printing type may be done by the blueprint method or by any similar or other methods. Many types of prints may be made with this printing set. If a positive film or a positive tracing is desired from the composition, the same may be produced by the use of a photographic film or sensitized tracing cloth. The result is black lines on a transparent or translucent background. This positive film of tracing may be regarded as the original and any type of print may be made from it. These originals may also be kept in stock for the production of such prints in the future. It is also possible to eliminate these originals and make paper prints directly from the reverse negative compositions.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a front elevational view of a composition constructed from photographic type in accordance with this invention.

Fig. 2 is a sectional view on the line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the composition shown in Fig. 1 with the printing frame removed.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 3.

Fig. 6 is a perspective view of one of the sections of the holding frame for the composition shown in Fig. 3.

Fig. 7 is a perspective view of one of the blocks of printing type.

Fig. 8 is an enlarged elevational view of one of the blocks of printing type.

Fig. 9 is an elevational view of another composition which is in the form of a diagram.

Fig. 10 is an elevational view of one of the printing blocks shown in Fig. 9.

Fig. 11 is an elevational view of another one of the printing blocks shown in Fig. 9.

Fig. 12 is an elevational view similar to Fig. 8 but disclosing a modified form of the invention.

Fig. 13 is another elevational view of another block embodying the same features disclosed in the block of Fig. 12.

Fig. 14 is a sectional view taken on the line 14—14 of Fig. 12.

Fig. 15 is an elevational view of another composition constructed in accordance with another form of this invention.

Fig. 16 is a fragmentary sectional view taken on the line 16—16 of Fig. 15.

Fig. 17 is a fragmentary enlarged sectional view taken on the line 17—17 of Fig. 15.

Fig. 18 is a fragmentary sectional view taken on the line 18—18 of Fig. 17.

Fig. 19 is a perspective view of another form of holding frame.

Fig. 20 is a front elevational view, showing a still further modification of the invention.

Fig. 21 is a side elevational view of Fig. 20.

Figs. 22 and 23 are perspective views of different shaped blocks of the printing type shown in Figs. 20 and 21.

Fig. 24 is a perspective view showing another grouping of blocks of the printing type.

Fig. 25 is a perspective view of one of the blocks of the printing type shown in Fig. 24.

The photographic printing type, in accordance

with this invention, includes a plurality of transparent or translucent blocks each having the reverse negative of a symbol, or letter, or numeral, or drawing, or picture, or blank space on its face. In Fig. 1 six of these blocks are shown displaying the composition "Tax \$2.50." Each of these blocks contains an individual symbol, or letter, etc., and each block is constructed in a manner so as to be definitely related to an adjacent block to make up the composition. Reference numeral 20 indicates the individual block, generally. The six blocks are arranged in two horizontal lines. The blocks may be constructed from Celluloid, or translucent composition materials, or other materials.

A means is associated with the edges of the blocks for connecting them together to build up a composition of blocks. This means is characterized by the fact that it prevents the passage of light between the adjacent edge portions of the blocks. The construction of each block 20 may be understood by examining Figs. 4, 5, 7 and 8 carefully. Each block is made from four adjacent layers of identical size pieces, which are shifted relative to each other in a specific manner so as to produce projecting flanges and grooves on the edges of the block. The second layer 20^b is shifted towards the right and downwards relative to the top layer 20^a. The third layer 20^c is shifted rearwards of the second layer 20^b but has its side edges in the same planes as the side edges of the second layer 20^b. The fourth or bottom layer 20^d is shifted downwards and towards the left of the layer 20^c. The top face of this block is imprinted, painted or in any other manner formed with a reverse negative of the symbol, letter, etc., which it stands for.

The blocks 20 may be "set," one into the other to build up the composition as shown in Figs. 4 and 5. When this is done it will be found that the flanges and grooves formed by offset arrangement disclosed in Fig. 7 fit each other. The various layers of the block may be cemented or secured together in any fashion, or if desired the layers may be theoretical in nature and the block formed of one solid piece and cut out so as to have the edge flanges and grooves.

A frame 21 is provided for holding each composition of blocks. Each frame is formed from two L-shaped pieces 21^a and 21^b. The ends of the arms of these pieces are formed with mortice and tenons inter-engaging each other, as clearly shown in Fig. 3. Moreover, the inner sides of the frame are formed with projecting flanges 21^c and recesses 21^d receiving and inter-engaging the complementary flanges and recesses of the edges of the composition of blocks. Frames similar to the frame 21 may be supplied for holding any size of composition produced from any number of blocks.

The frame composition shown in Fig. 3 may be placed within a conventional photographic printing frame to print the composition. Figs. 1 and 2 show the application of the composition into such a printing frame. This frame is indicated by numeral 23. Its front face is provided with an opening 24 across which there is a plate of glass 25. The composition shown in Fig. 3 is rested on this glass 25 with its top face remote from the glass 25. A sensitized sheet 26 is placed across the top face of the composition. The back 27 of the printing frame is then placed across the back of the sensitized sheet 26. The usual spring clip 28 is then engaged in position to hold the back of the printing frame in place. The frame with its

composition is then exposed to sunlight, daylight or artificial light, the correct period of time, as required for different types of sensitized sheets being printed.

In Figs. 9-11 inclusive a modified form of the invention has been disclosed which is similar to the prior form, distinguishing merely in the fact that provision has been made for connecting the lines between the various blocks 20' of the printing type. In this form of the invention the blocks 20' are shown disclosing a diagram which is formed largely from lines. However, these lines are required to be continued from one block to the other. For this reason the flanges of the blocks 20' are cut out at the points 30 comprising continuations of the lines required to pass from one block to the other. In other respects this form of the invention is similar to the previous form.

In Figs. 12-14 inclusive another form of the invention has been disclosed which is similar to the first form of the invention, distinguishing merely in the fact that each block has been provided with "keys" and complementary recesses adapted to hold adjacent blocks in proper alignment with each other. Each block 20'' is provided with recesses 31 and projections 32 formed on the sides thereof at complementary positions and comprising said "keys." These recesses and projections are of complementary shapes. The arrangement is such that the blocks may be set together with the flanges engaging the recesses only when they are at the proper alignment to have the projections 32 engage the recesses 31. This produces the keying effect referred to.

In Figs. 15-18 another form of the invention is disclosed which distinguishes from the prior forms in the construction of the means associated with the edges of the blocks for connecting them together to build up a composition in a manner so as to prevent the passing of light between the blocks. Specifically, the composition is formed from a group of blocks 33 each of transparent or translucent material and having the reverse negative of a symbol, or letter, or number, or drawing, or picture, or blank space, etc., on its top face. Each block 33 has a strip of felt 34 attached along all of its sides. When adjacent blocks are placed together the felt particles will inter-engage each other so tightly as to prevent the passage of light. Suitable means is associated with each of the blocks to hold adjacent blocks under pressure, as required.

The holding means referred to in the previous paragraph includes clips 35 mounted on each block and engageable in complementary recesses 36 on adjacent blocks. Each clip 35 comprises a strip of spring steel, or similar material held at its central portion 35^a by several fastening elements 35^b. Each spring has its end portions 35^c flared outwards and adapted to engage flared ends 36^c formed on the sides of the recesses 36. The flared ends 35^c continue into inwardly directed portions 35^d. The arrangement is such that adjacent blocks may be forced together and the spring clips will engage into the recesses 36 and clip the sides thereof to hold the blocks together with sufficient pressure on the felt edge pieces to prevent the passage of light. These blocks may be separated merely by pulling them apart.

The composition is associated with a frame 38 which is composed from two adjacent L-shaped sections 38^a and 38^b having mortice and tenon ends. These sections have felt material 39 along

their inner edges adapted to engage the felt material along the outer edges of the blocks 33. Moreover, the inner edges of the L-shaped sections 38^a and 38^b are suitably recessed to accommodate the projecting clips 35 wherever required. Moreover, the sections 38^a and 38^b are associated with holding means capable of holding them in position so that the felt strips 39 are pressed against the felt strips 34 of the adjacent blocks. This is accomplished with steel spring strips 40 which are fixedly mounted at one of their ends by fastening elements 41 at points on one of the sections and extend over areas of the other of the sections. These extended portions are formed with coiled ends 42.

Each spring 40 is housed within a recess 43 formed in the material of the adjacent sections. The springs 40 are capable of holding the sections 38^a and 38^b with sufficient tension to hold the felt strips 39 and 33 in light restraining conditions.

In Fig. 19 the frame 21' is shown with a plurality of outwardly extending headed studs 44 for winding a chord, wire, or the like around the frame and for anchoring the chord on the studs 44 and to keep the frame at various size settings. In other respects this form of the frame is similar to that shown in Fig. 6.

The blocks 20''' and 20'''' are shown joined and held in set position by T-shaped guides 45 and Z-shaped end members 46.

In Figs. 24 and 25 blocks 47 are illustrated with velvet or like strips 43, which surround the four sides of the blocks.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. Photographic type comprising a plurality of translucent blocks adapted to be locked in a frame and having the negative of a symbol on the top face of said blocks, means on the adjacent edges of said blocks for connecting them together to build up a composition of said blocks and prevent movement of said blocks in all directions relative to each other, comprising two edge flanges formed on certain of the edges of said blocks and engageable with complementary edge grooves formed on the remaining edges of said blocks.

2. Photographic type comprising a plurality of translucent blocks adapted to be locked in a frame and having the negative of a symbol on the top face of said blocks, means on the adjacent edges of said blocks for connecting them together to build up a composition of said blocks and prevent movement of said blocks in all directions relative to each other, comprising two

edge flanges formed on certain of the edges of said blocks and engageable with complementary edge grooves formed on the remaining edges of said blocks, said blocks being constructed of four identical rectangularly shaped pieces superimposed on one another in certain projected positions and securely connected together forming said cooperative interengaging flanges and grooves.

3. Photographic type, comprising a plurality of translucent blocks adapted to be locked in a frame and having the negative of a symbol on the top face of said blocks, means on the adjacent edges of said blocks for connecting them together to build up a composition of said blocks and prevent movement of said blocks in all directions relative to each other, comprising two edge flanges formed on certain of the edges of said blocks and engageable with complementary edge grooves formed on the remaining edges of said blocks, said blocks being constructed of four identical rectangularly shaped pieces superimposed on one another in certain projected positions and securely connected together forming said cooperative interengaging flanges and grooves, said projected positions, comprising the second layer being projected upwards and towards the right, the third layer being projected towards the right only, and the fourth layer being projected upwards only, all relative to the first layer which is located at the bottom.

4. Photographic type, comprising a plurality of translucent blocks adapted to be locked in a frame and having the negative of a symbol on the top face of said blocks, means on the adjacent edges of said blocks for connecting them together to build up a composition of said blocks and prevent movement of said blocks in all directions relative to each other, comprising two edge flanges formed on certain of the edges of said blocks and engageable with complementary edge grooves formed on the remaining edges of said blocks, said symbols comprising lines extended from one block to an adjacent block, said cooperating flanges of said adjacent blocks being cut out at the point where said line passes from block to block.

5. Photographic type, comprising a plurality of translucent blocks adapted to be locked in a frame and having the negative of a symbol on the top face of said blocks, means on the adjacent edges of said blocks for connecting them together to build up a composition of said blocks and prevent movement of said blocks in all directions relative to each other, comprising two edge flanges formed on certain of the edges of said blocks and engageable with complementary edge grooves formed on the remaining edges of said blocks, and keys formed in certain of said grooves and cooperative with complementary cutouts formed in the cooperative flanges assisting in the aligning of said blocks while composing said composition.

FRED LITTY.