No. 640,346. Patented Jan. 2, 1900.

E. L. WILSON.

ELECTROTYPE OR STEREOTYPE BLOCK.

(Application filed Dec. 16, 1896.)

(No Model.) 2 Sheets—Sheet 1.

Fig 1

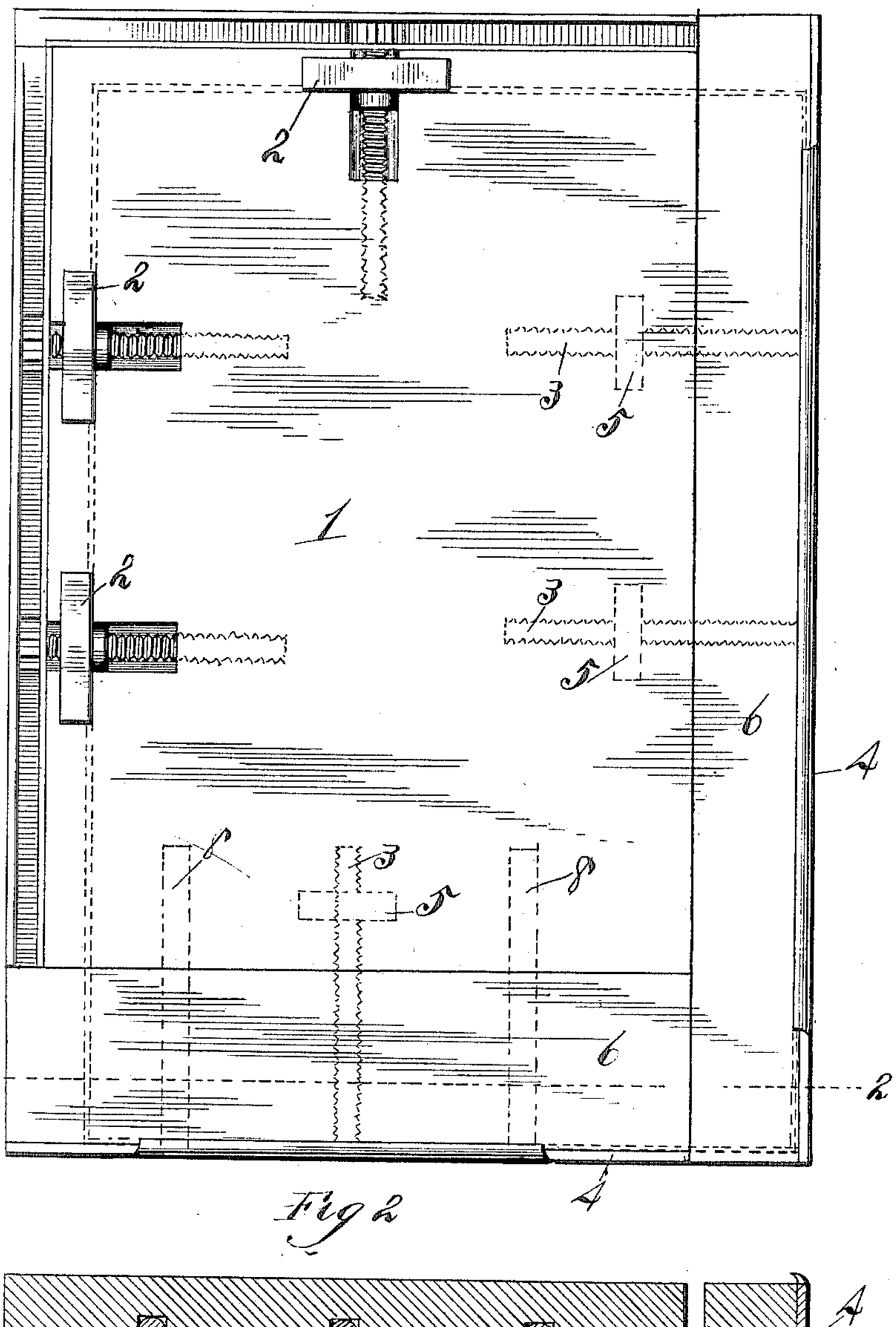

Fig 2

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Inventor
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Paul Synnestvedt

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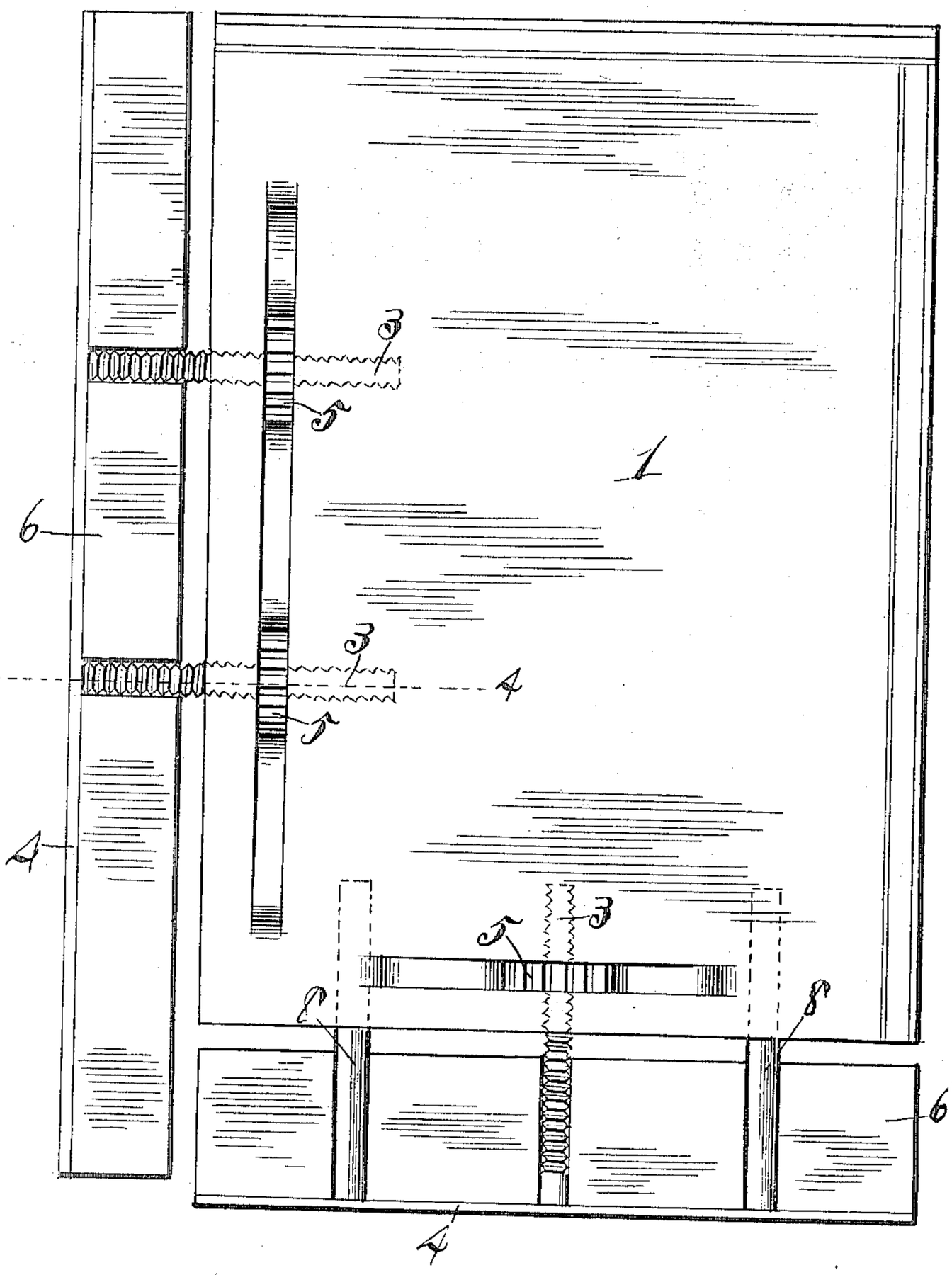
Fig 3



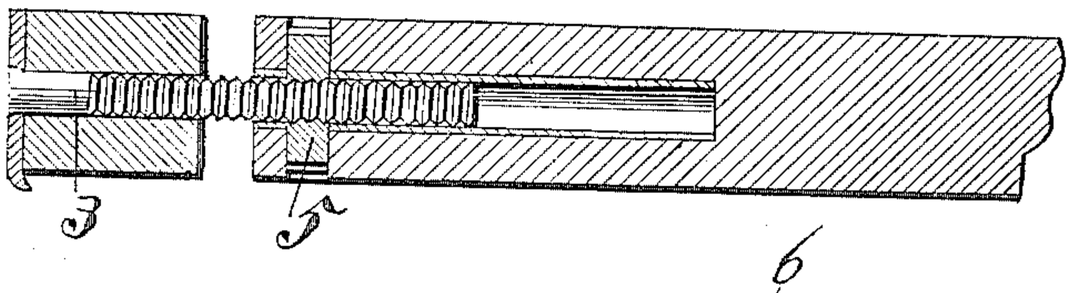


Fig 4

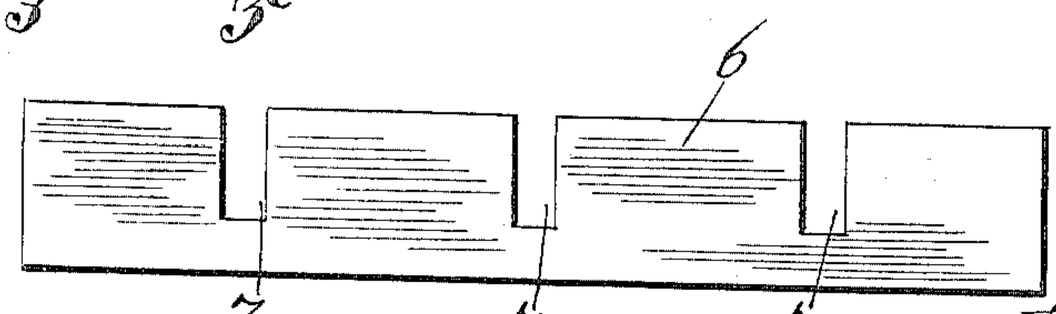


Fig 5

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UNITED STATES PATENT OFFICE.

EDWIN L. WILSON, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO ROBERT M. EASTMAN, OF SAME PLACE.

ELECTROTYPE OR STEREOTYPE BLOCK.

SPECIFICATION forming part of Letters Patent No. 640,346, dated January 2, 1900.

Application filed December 16, 1896. Serial No. 615,940. (No model.)

To all whom it may concern:

Be it known that I, EDWIN L. WILSON, a citizen of the United States, residing in Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Electrotype or Stereotype Blocks, of which the following, taken in connection with the accompanying drawings, is a specification.

Electrotype-blocks as heretofore commonly made have consisted of a body portion, generally of wood, having projecting metal strips along its edges, against which the plate was designed to be secured by means of clamps on the sides of the block opposite to such projecting edges or metal strips. In order to get a proper number of pages on a certain size sheet of paper, it is necessary that each block should be approximately the same size as the plate which it holds. It follows, therefore, that as there is an almost infinite number of different sizes of plate used where it is necessary to have a different size of block for each different size of plate an enormous stock of blocks of various sizes must be kept constantly on hand by every printing establishment. These blocks constitute an item of considerable expense, and attempts have heretofore been made to overcome this trouble by the construction of a block made of a number of different pieces which could be fitted together in various ways, so as to fit different sizes of plate. Such attempts have, however, produced but unsatisfactory results for various reasons, among which may be mentioned a lack of stability or strength, complication, and expense.

By my improvement I aim to overcome the above-mentioned difficulties by the construction of a block having a main or body portion and extensible or adjustable metal edge strips or fastenings on two adjacent sides combined with filling-pieces.

My invention consists, further, in certain details of construction and combinations of parts to be hereinafter specifically pointed out in the claims and which I shall now proceed to describe in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a block embodying my improvements. Fig. 2 is a section of the same, taken on the line 2 2 of Fig. 1. Fig. 3 represents an inverted plan view of my improved block, showing the edge strips extended or set out from the body portion and filling-pieces of smaller size than are shown in Fig. 1 put into place ready to be secured by tightening of the adjusting-screws. Fig. 4 is a section taken on the line 4 4 of Fig. 3. Fig. 5 is a side view of one of the filling-pieces.

Referring now more particularly to Fig. 1, it will be seen that I have provided a main or body portion 1, containing clamps 2 of the common form. This body portion may be of any suitable material; but wood is generally used. The clamps shown are of a type well known in the art for many years and any other form of clamp preferred could be substituted, if desired, as the specific construction of these constitutes no part of my present invention. Extending out from the sides of the body portion which are opposite to the clamps are screws 3, (shown in dotted lines in Fig. 1,) on the outer ends of which are carried metal edge strips 4, projecting above the face of the block. Operating in connection with the screws 3 I provide nuts 5, (see Figs. 3 and 4,) which for convenience are made somewhat like spur-gears and can be adjusted by means of a rack, ratchet, or handle in the hand of the operator.

Between the extended edge strips 4 and the body portion I have inserted filling-pieces 6, (see Figs. 2 and 5,) preferably of wood, to afford a backing for the outer portion of the plate to be held—*i. e.*, that portion of the plate which does not come directly over the body portion itself. These filling-pieces have notches 7 cut in their under faces to permit them to be put in without interfering with the adjusting-screws or guide-pins 8.

If now it be desired to use my block in connection with a plate which is about the size of the body portion, the filling-pieces are removed and the edge strips are brought in close to the body portion by tightening up on the adjusting-nuts 5 until the edge strips bear tightly against the body portion, the block being then for all practical purposes substantially like a block of the ordinary construction, in which the edge strips are fastened to the sides of the main or body portion simply by means of screws or other securing devices.

The plate is then put is place and secured by means of the clamps 2 in the usual manner.

If it is now desired to use my block in connection with a plate of larger size, the nuts 5 are turned until the edge strips have been set out from the body portion sufficiently far to allow the proper-sized filling-piece to be inserted, and after the latter is put in place the edge strips are tightened up against it, making the whole for all practical purposes as good as an integral back or block of a single piece. In Fig. 3 the edge strips are shown as out from the body portion far enough to permit the filling-pieces to be put in and just ready to be tightened up against the latter.

It is obvious that by simply having a large number of different sizes of filling-pieces, which cost but very little, the same block may be made to fit quite a number of different-sized plates, and as it is the main or body portion 1 and the clamping devices 2 that form the most expensive part of the construction considerable economy is thereby effected.

I am aware that a construction heretofore proposed has provided as a means of transverse extension an edge strip composed of a part of the backing of the block proper, but it shows no means for securing an extension endwise, and if the same arrangement as is used on the side were placed on the end a small square the width of the portion of the block carried out would always be open, the plate at that point being entirely without support. This, together with the fact that in such construction in its present condition the amount of possible extension on the end is confined to the movement of the clutch, materially limits the number of different-sized plates which it can be made to accommodate, since the size of a page generally grows in length proportionately to its growth in width. The use of movable clutches on both sides and ends, as shown in the device referred to, makes it highly probable that where a set of thirty-two is used all would not be set at equal distances from the edge, thus throwing the plates out of register, a mishap that could only be remedied by an expenditure of considerable time and trouble. My invention is not open to the above-mentioned objections. Still another form has been heretofore proposed in which the body of the block consists of three separate and distinct parts, which, being constructed of wood, will, no matter how carefully the material be seasoned, shrink so as to leave an uneven surface at their junction edges, thus rendering the block useless, since it is imperative that the plate rest upon a perfectly even surface. This block being in its original state in three parts is seriously weakened by inserting the filling-pieces in the center. My improved block having a body of one piece must, even after shrinking, still continue to present an even surface. Owing to the complicated nature of the end pieces used in the device last referred to, the number of different-sized blocks that may be constructed is limited to the number of such end pieces furnished with the set, since the block can only be extended sidewise by removing and attaching a new end piece of different length.

My filling-pieces consist simply of strips the height of the body of the block with notches cut in them, so that they may drop freely over the screws. These pieces are all that is required to adapt the size to any dimension of plate and are easily manufactured without the aid of a skilled mechanic and with such tools as are generally contained in a printing-office, making the sizes capable of being constructed virtually unlimited. The fact that the different sections of the block shown in the prior construction last above referred to are held together by means of pins fitting in holes, wherein they must necessarily work freely, in order that the filling-pieces may be readily changed, renders it so fragile that it must be locked tightly in a chase to keep it from spreading when the plates are clamped in place. The clamp-blocks being separate and distinct parts also renders this precaution necessary.

Blocks made in accordance with my invention are vastly superior in this respect, inasmuch as when the filling-pieces are not used the metal edge strips are held in place by the screws which serve to throw them out, and after the filling-pieces have been inserted the metal strips serve as clamps to hold them firmly in place, making a block solid, light, free from complicated parts, and capable of being extended both transversely and longitudinally without interchange of original parts and without disturbing the main body of the block.

While I have shown a screw and nut as the means of adjusting the edge strips against the body portion, it is perfectly apparent to any one skilled in the art that any other adjustable fastenings, such as springs or pins, could be substituted, if desired, and while I prefer the construction shown I desire to be understood as regarding all such possible substitute fastenings as fully within the scope of my invention.

I am aware that it has been proposed heretofore to enlarge stereotype-blocks by providing them with adjusting-screws at one side and at one side and one end, said screws having attached to their outer or head ends not only the usual metal edge strips, but also permanently-secured filling-pieces, which constitute portions or sections of the block-body and which may be moved away from the body portion of the block to permit additional removable filling-strips to be inserted between them and the said body portion. This construction is defective, for the reason that the meeting ends of the permanent filling-pieces secured to the metal edge strips in order to form a square block must be beveled to form a miter-joint, and when it becomes necessary to separate such meeting ends for the introduction of additional filling-strips

there is necessarily left at the corner of the block where the said beveled ends of the strips are located an open space which cannot be filled with the additional filling-strips. The important distinction between my device and that just described is that I do away with these permanent filling-strips or sections of the block-body and for a block comprising only the metal edge strips, the integral block-body, and the adjusting-screws, the meeting ends of said metal strips overlapping each other at right angles, and thus make it possible to build up the block from both side and end by removable filling-strips which overlap at right angles without leaving any open space at the corner. I disclaim the broad combination of a block comprising a body portion, filling-strips, and adjusting devices; but

What I claim is—

A stereotype-block consisting of a body portion or block proper, comprising a single piece of material, in combination with adjusting devices projecting from one end and side of the block, a metallic edge strip directly secured to one side and end of the block, and adjustable metallic edge strips secured to the side and end adjusting devices said edge adjustable strips thereby permitting the introduction of rectangular filling-strips overlapping each other at right angles between said adjustable edge strips and the block proper without leaving an unfilled space at one corner of the block.

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Witnesses:
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R. T. THORNTON.