No. 867,637. PATENTED OCT. 8, 1907.

G. H. BENNETT.

PROCESS OF MAKING FLOORING AND THE FLOORING ITSELF.

APPLICATION FILED MAY 14, 1904.

3 SHEETS—SHEET 1.

Fig. 1

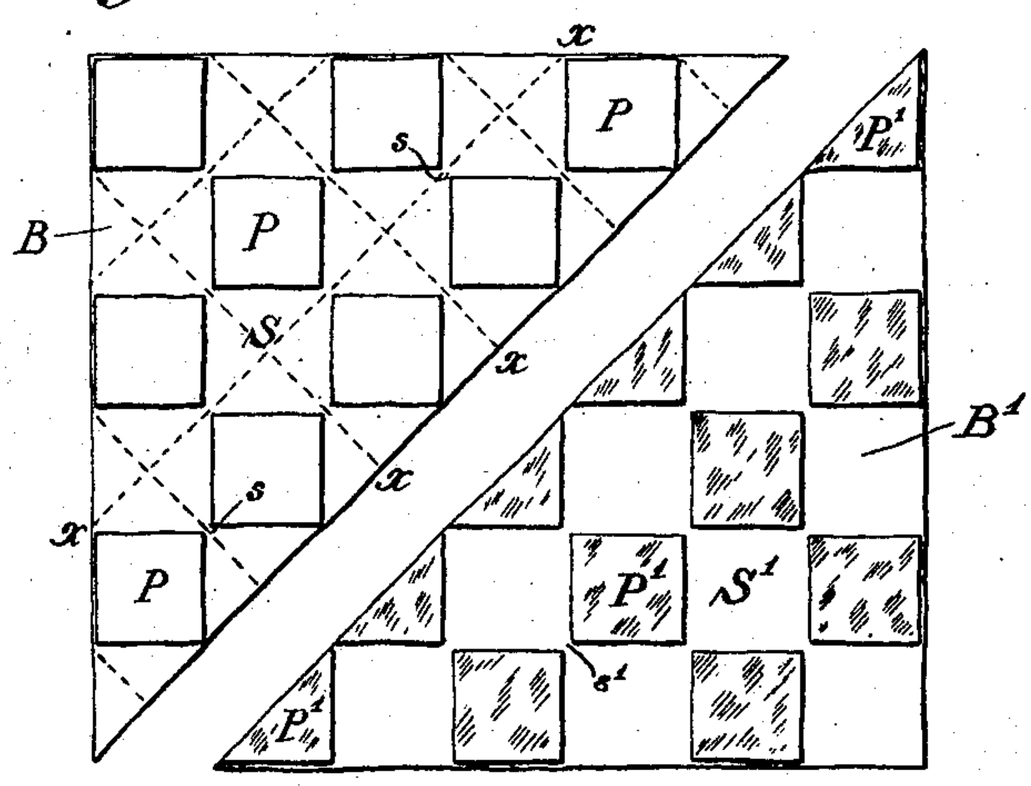


Fig. 2

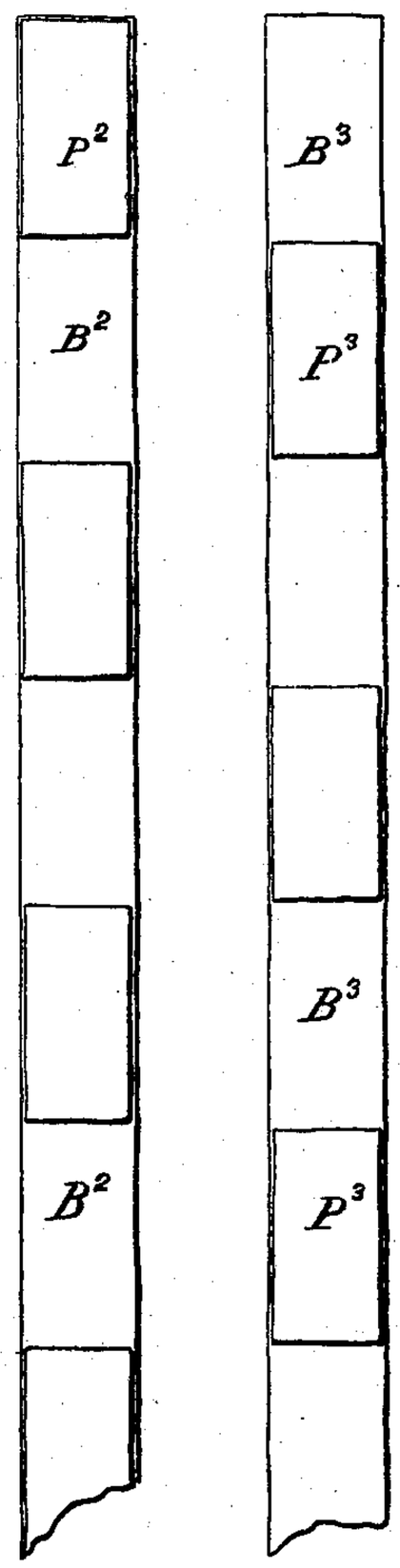
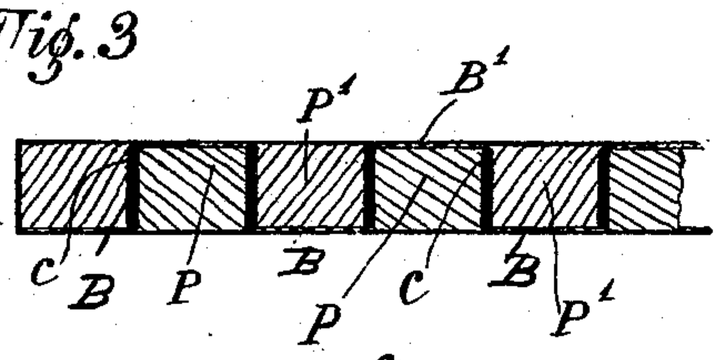


Fig. 5

Fig. 6

Fig. 3



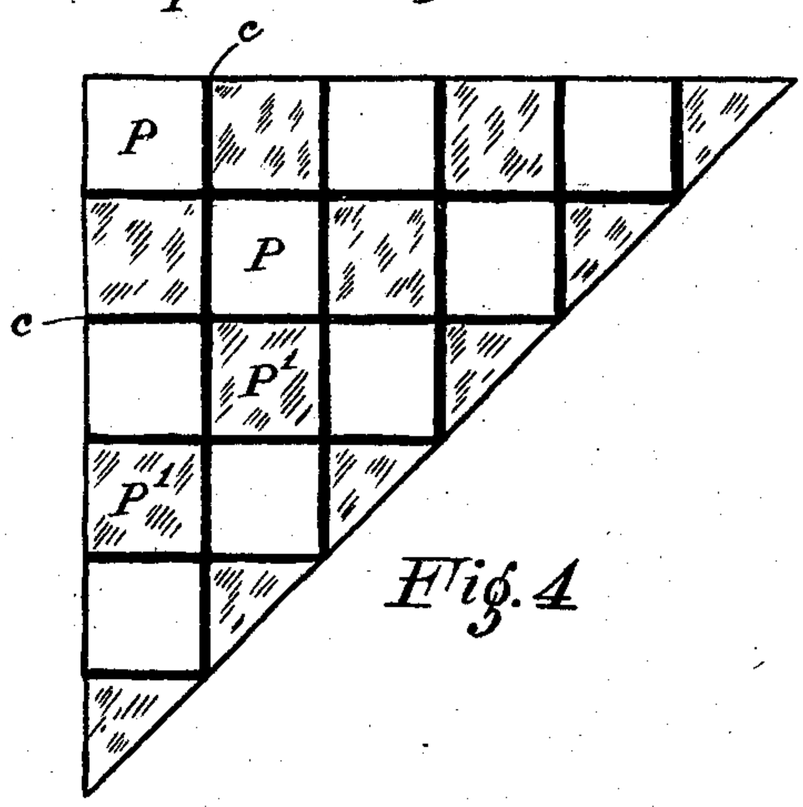


Fig. 4

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3 SHEETS—SHEET 2.

Fig. 7

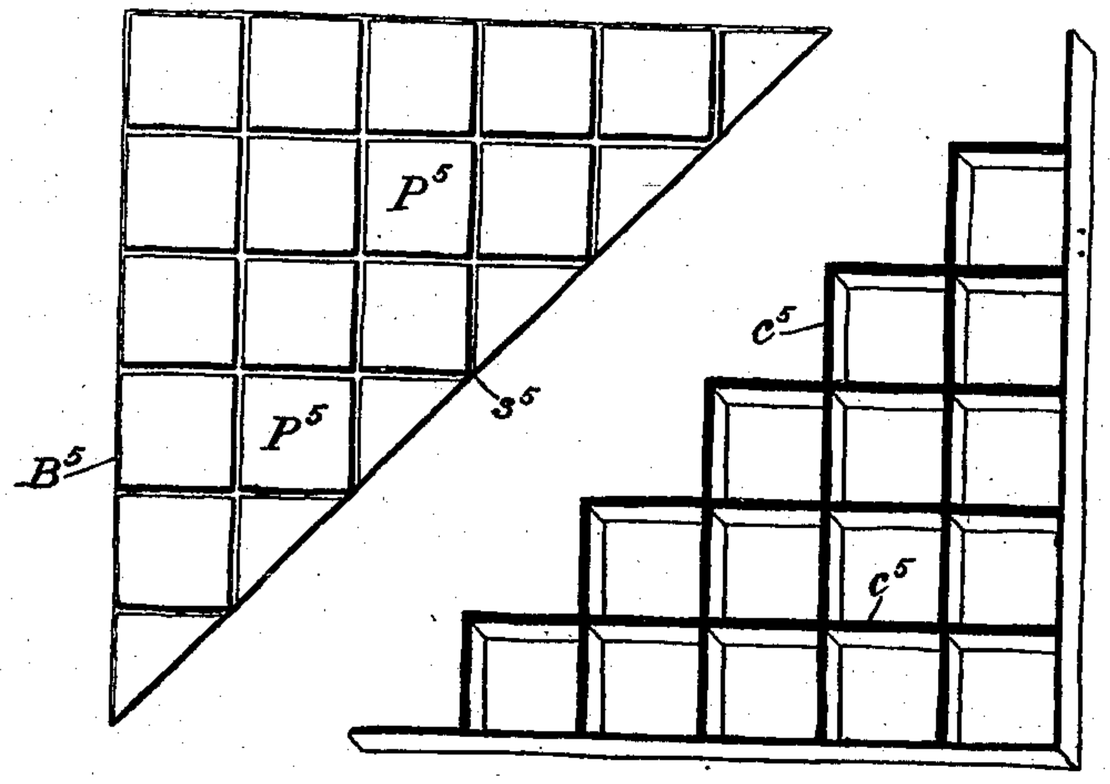

Fig. 8

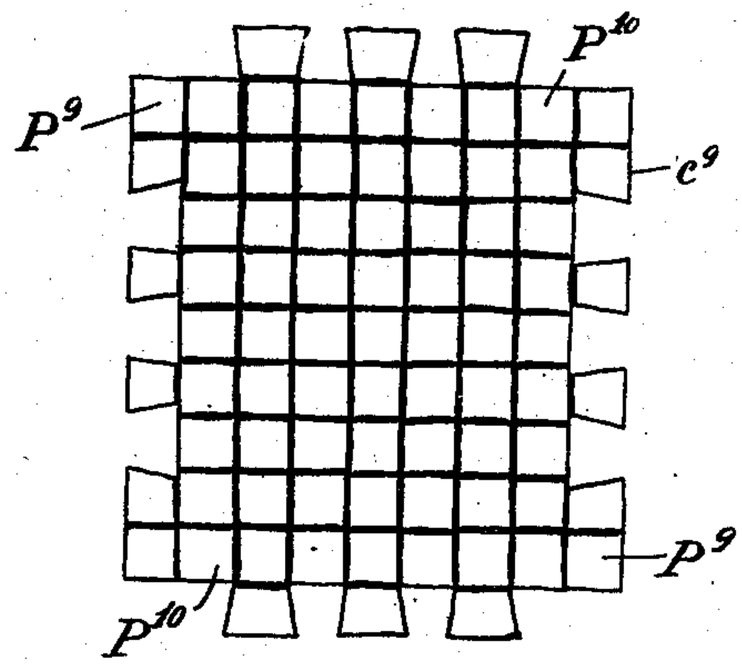

Fig. 9

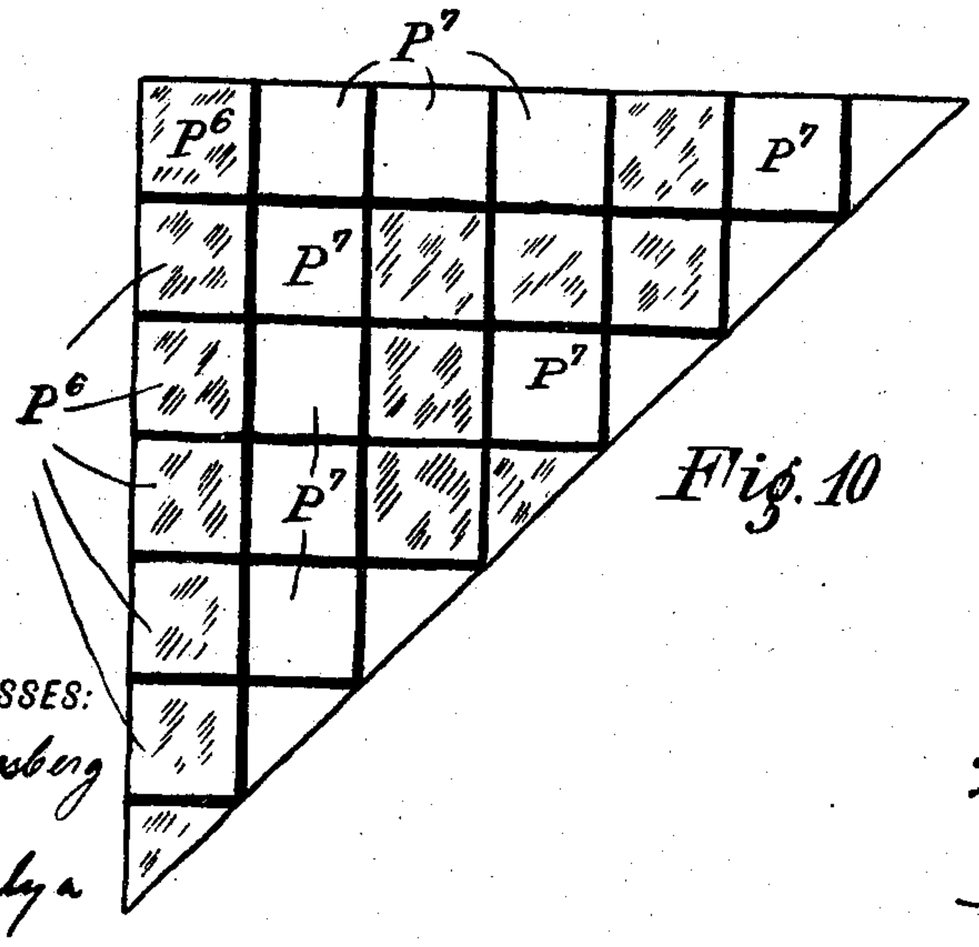

Fig. 10

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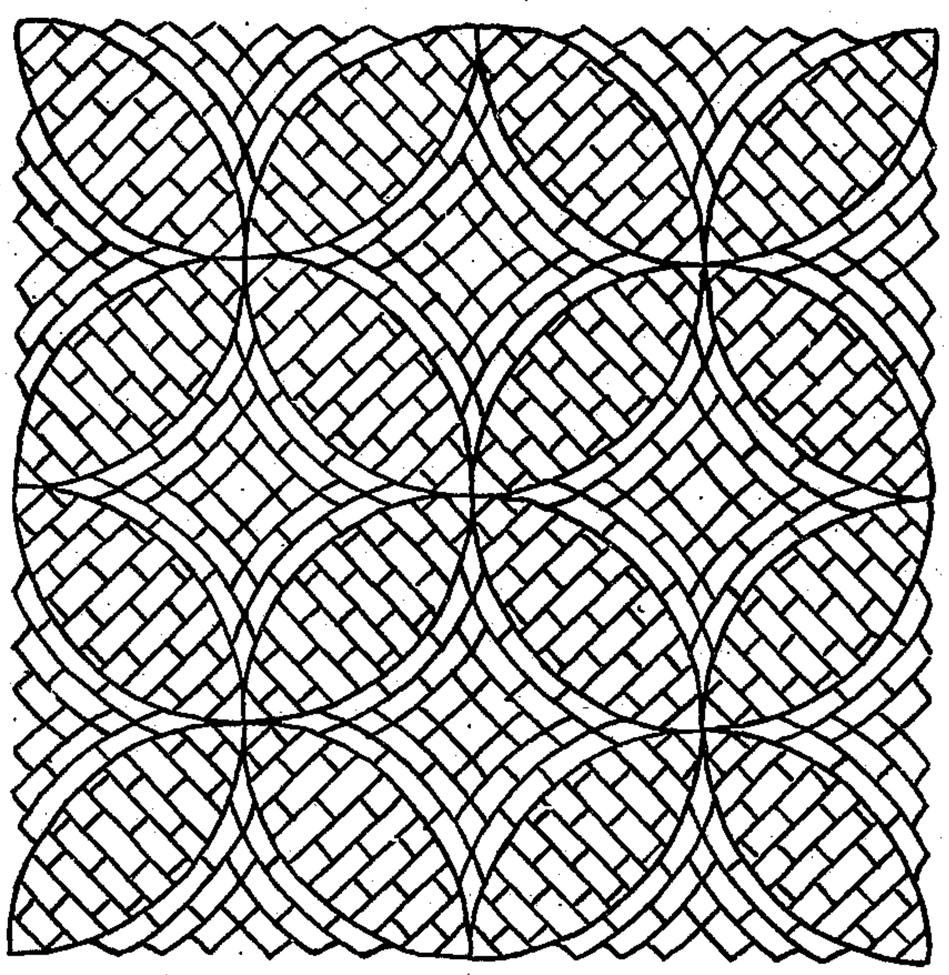
3 SHEETS—SHEET 3.

Fig. 11



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UNITED STATES PATENT OFFICE.

GEORGE H. BENNETT, OF NEW YORK, N. Y.

PROCESS OF MAKING FLOORING AND THE FLOORING ITSELF.

No. 867,637. Specification of Letters Patent. Patented Oct. 8, 1907.

Application filed May 14, 1904. Serial No. 207,920.

To all whom it may concern:

Be it known that I, GEORGE H. BENNETT, a citizen of the United States of America, residing at New York city, New York, have invented certain new and useful Improvements in Process of Making Flooring and the Flooring Itself, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same, in which:

Figure 1, is a plan view of a section of a blank embodying the main features of my invention; Fig. 2, is a plan view of a section of the complemental blank, preferably used by me in practicing my new process; Fig. 3, is a vertical sectional view of the sections of 1 and 2 placed one upon the other, showing also the cement between portions of the blanks; Fig. 4, is a plan or face view of a section of the completed flooring, made by the use of blanks such as exhibited in Figs. 1 and 2, and the interposed cement; Fig. 5, is a plan view of a blank section similar in character to that of Fig. 1, but differing in shape; Fig. 6, is a plan view of a complemental blank section of similar design; Fig. 7, is a plan view of a blank section of modified form; Fig. 8, is a perspective view of the complemental blank section used with that of Fig. 7; Fig. 9, is a plan view of a blank or section adapted to link into a similar one to make up a flooring; Fig. 10, is a plan view of a section completed from blanks used in making borders; and, Fig. 11, is a face view of a finished section, of another design from any previously shown.

My invention relates to rubber flooring and analogous articles, made in one or various colors, and particularly to mosaic with cement between the parts of the mosaic, and it consists first in the blanks from which I make the flooring, also in the flooring composed of the blanks and in the process of constructing it.

Rubber flooring, as heretofore constructed, consisted of a series of small blocks, of one or many colors. The formation or construction of such a flooring is tedious and expensive, since each small piece must be punched out of sheets partly vulcanized, then cement must be applied to each individual tile which must be placed separately, and moreover, even when thus constructed, such flooring is not acceptable from the fact that it does not truly resemble a mosaic or tile flooring. To secure good results there must of course be pieces, each of which represents a tile or a piece of mosaic, preferably arranged in patterns, and to insure durability it is necessary to use pieces of sufficient thickness. I have, however, invented a system of securing the desired results, and have constructed a new factor for use in said process.

In practicing my invention, I first form a blank, preferably molded, such for instance as that of which Fig. 1 is a section, being shown triangular to illustrate the fact that it may be indefinitely extended, within the limits of practical handling.

It consists of a base B, (a comparatively thin sheet of rubber or duck faced with rubber) carrying projections P, made to represent tiles or portions of a mosaic. This blank may be all of one color and formed in one piece, or, if preferred, in several pieces, of one or more colors, though the full benefit of the invention is best secured by forming it in one piece. If the exigency of the design compel it, there may be one complete sheet of the base and the projections, or some of the projections may be formed separately, coated with rubber cement, and set in their appropriate places where they will remain, held fast by the cement. This blank is the basis of the whole matter and it represents the product invention, when considered in its simplest form. In proceeding further, I form a second blank, preferably such as that of which a section is shown at Fig. 2, having a similar base B′, with other projections P′. I may use in this blank a color differing from that of blank 1, and it may be constructed in a similar way. It will be noticed that the projections P′ are so arranged as to occupy spaces corresponding in position to the vacancies S, left between the projections P, of the first blank, but, preferably, not to entirely occupy said spaces, as I prefer to leave a space *s*, to be occupied by cement which shall represent the cement line of a tile of mosaic floor, in the completed article. Having these two blanks, which have been semi-vulcanized, I then place rubber cement, that is, a solution of unvulcanized rubber, or a suitable binder, in the vacant spaces of one blank—say the first—and reversing the other blank, place it upon the first so that projections P′ shall enter spaces S and projections P, shall enter spaces S′. The parts are now firmly pressed together and then completely vulcanized, when the product will be an integral piece of rubber composed of the two blanks and the cement, such for instance as that shown in section in Fig. 3. Now, if there was a back to the second blank, I remove one or both backs by grinding or cutting, or in any other suitable manner, and I have a section of flooring such as that of which a part is shown in Fig. 4, that is, one in which the pattern of the respective projections having their respective forms (or uniform, according to their primary construction) plainly appears, and having also a truthful representation of a cement line *c*, and one in which the tiles (projections) P, and P′, and the cement *c*, have the depth of the projections as originally formed, which permits me to make them as thin or as thick as circumstances may prompt. These blanks, or sections, can be readily made, and by their use, the labor of cutting and setting each individual tile piece in position and the attendant expense, is avoided, and the resulting section is more durable and also more artistic than the flooring heretofore made.

If a large floor is to be covered, it is impracticable to make the whole covering in an integral piece, but it

may readily be made as described, in sections of sufficient size to attain the ends sought.

If a border, say a line of one color, is desired, particularly if that is to differ from the main color scheme of the floor, I may form that in strips such as shown in Figs. 5 and 6 which may be manipulated just as the parts shown at Figs. 1 and 2.

If a mosaic flooring of one uniform color is desired, I can make the first blank, such as shown in Fig. 7, having all of the so-called projections P^5 on the one base B^5, and, for the other blank, mold a reticulated form such as shown in Fig. 8, with or without a back, preferably with one. This blank will represent or form the cement line and upon being coated with cement and forced into spaces S^5, may be vulcanized into one piece integral with B^5, and P^5, just as was done with the pieces of 1 and 2. The pressure will tend to give the lines of union between parts P^5 and c^5, that slight irregularity, which is usually observable in true mosaic work, and the edges of the walls of the projections may be formed with slight irregularities to assist in producing such a result.

Sometimes it is found desirable to form a blank, such as indicated in Fig. 1; to then set in it another blank, such for instance as that of Fig. 8; or any other series to make up the desired pattern, to then place the complemental blank, such as Fig. 2, and to then vulcanize the mass, instead of putting cement in the spaces as at first described.

If a flooring is desired with a specific border, such as shown in Fig. 10, I may produce that by forming my blanks in sections, having projections arranged like P^6, P^7, one series upon one base and the other upon the second base. Indeed, even so small blanks as those within the dotted lines of Fig. 1 would be useful, that is one outlined by lines x, x, on Fig. 1, since they readily lend themselves to the convenient setting, of various patterns in squares or other forms, and, upon being placed in series, make up blanks such in general outline as those of 1 and 2, and may be manipulated, vulcanized and finished substantially as are those of 1 and 2, or others, the possibilities of this process, founded upon the base with a projection being well illustrated in Fig. 11, which may be considered as one complete section, formed as was that of Fig. 4, or as a number of such sections placed together.

What I claim and desire to secure by Letters Patent is;

1. A rubber flooring composed of a blank having a base and a series of integral projections constituting tiles, extending from said base, and a second series of projections interposed between the units of the first series, all substantially as set forth.

2. A rubber flooring composed of a blank having a base and a series of integral projections constituting tiles, extending from said base, a second series of projections constituting tiles interposed between the members of the first series and a series of cement lines interposed between the various projections, all substantially as set forth.

3. The process of making rubber flooring which consists in forming an integral blank unit having a base and a projection constituting a tile, a second blank adapted to fill the space in the first blank adjacent to its projection placing one upon the other with cement between and vulcanizing the mass.

4. A rubber flooring composed of a blank having a base and a series of integral projections constituting tiles extending from said base, and a second series of projections interposed between the members of the first series of projections and all united into one mass, substantially as set forth.

5. The process of making rubber flooring, which consists in forming an integral blank unit having a base and a projection, a complemental blank, placing one upon the other, with cement between and vulcanizing the mass.

6. The process of making rubber flooring which consists in forming an integral blank having a base and a series of projections extending therefrom but separated one from the next, and a second blank having projections adapted to enter the intervals between the first series, placing one upon the other, interposing a cement and vulcanizing the mass, all substantially as set forth.

7. The process of making rubber flooring, which consists in forming an integral blank having a base and a series of projections extending therefrom but separated one from the next, and a second blank having a base and projections extending therefrom adapted to enter the intervals between the first series, placing one upon the other, interposing a cement, vulcanizing the mass and then removing one or both of the bases, all substantially as set forth.

8. The process of making rubber flooring, which consists in forming an integral blank having a base and a series of projections extending therefrom, some of which are of a given color, but separated one from the next, and a second blank having projections, some of which are of a color differing from the first color, adapted to enter the intervals between the first series, placing one upon the other, interposing a cement and vulcanizing the mass, all substantially as set forth.

9. The process of making rubber flooring, which consists in forming an integral blank having a base and a series of projections extending therefrom, some of which are of a given color, but separated one from the next, and a second blank having a base and projections extending therefrom, some of which are of a color differing from the first color, adapted to enter the intervals between the first series, placing one upon the other, interposing a cement, vulcanizing the mass and then removing one or both of the bases all substantially as set forth.

10. The process of making rubber flooring, which consists in forming an integral blank having a base and a series of projections extending therefrom but separated one from the next, a second blank having a base and a series of projections adapted to enter spaces between the first series of projections and a third blank adapted to fill the spaces between the projections of the first and second blanks, placing the various blanks in position with cement interposed and vulcanizing the mass, all substantially as set forth.

11. The process of making rubber flooring, which consists in forming a blank having a base and projections, a complemental blank representing the cement line, placing one in position with relation to the other with cement between and vulcanizing the mass.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 30th day of April, 1904.

G. H. BENNETT.

Witnesses:
L. D. CHURCH,
A. G. N. VERMILYA.