To all whom it may concern:

Be it known that I, HARRY L. GUY, a citizen of the United States, and resident of Oak Park, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Roofing, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improvements in roofing, and is particularly concerned with improvements in roofing of the prepared variety, that is, roofing formed from sheets of fibrous material impregnated or coated, or both, with water-repellant material.

The objects of my invention are—

First: To provide roofing material in the form of shingles which are shaped so that they are easy to apply and secure to a roof;

Second: To provide shingles of the character described having straight upper and lower edges which can easily be laid to a straight edge or guide mark;

Third: To provide roofing of the character described comprising a plurality of overlapping courses of shingles, each successive course having a portion or portions interlocked with the shingles of the next lower course, this interlock being of such character as to properly position the shingles of each succeeding course as the roof is being laid, so as to obviate the necessity of using additional guide marks or lines for properly positioning the successive courses;

Fourth: To provide roofing such as described, in which the edges of the shingles define geometrical figures which are pleasing to the eye, these figures preferably being in the shape of a hexagon;

Fifth: To provide roofing of the character described, in which but two nails per shingle are required for securing the roofing to the sheathing, these nails or fastening devices being so located as to permit free expansion of the shingle in its longest dimension;

Sixth: To provide roofing such as described, in which the shingles of each succeeding course cover the fastening means of the next lower course;

Seventh: To provide a shingle for forming roofing such as described above, which can be cut from strips of prepared roofing material with substantially no wastage.

Other objects of my invention will appear as this description progresses, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a roof constructed in accordance with my invention;

Figure 2 is a fragmentary perspective view, illustrating somewhat more clearly the manner in which the shingles interlock with each other;

Figure 3 is a section, on an enlarged scale, taken on line 3—3 of Figure 1, and

Figure 4 illustrates the manner in which my improved shingles can be cut from a strip of material with substantially no wastage.

Throughout the several views, similar reference characters will be used for referring to similar parts.

I have illustrated my invention as being embodied in a roof comprising the usual rafters, carrying the sheathing boards, upon which the shingles forming a part of my invention are to be laid. These shingles, as shown in Figures 1 and 2, are substantially the shape of a keystone, having the horizontal edges 7 and 8 and the diverging vertical edges 9. A tab 10 projects outwardly from the lower end of each vertical edge 9. In cutting the shingles from strips, as shown in Figure 4, these tabs form notches 11 in the corners of the shingles adjacent the long horizontal edge 7. A notch 12 is cut in each vertical edge 9 of the shingle, the side 12" of each of these notches being substantially parallel with the opposite edge 9, for a purpose which will later be referred to. Preferably the top side 12" of each notch inclines slightly outwardly and downwardly toward the shorter edge 8 of the shingle.

In applying my shingles to a roof, a strip of prepared roofing material may first be applied to the lower edge of the roof to act as a starting strip, or a plurality of shingles may be inverted and arranged with their corners 13 in contacting relation, as shown at the left hand side of Figure 1. Upon the starting strip thus formed, a second course of shingles is arranged with the longer horizontal edge 7 of each shingle at the top, and with the corners 13 of adjacent shingles contacting. These corners contact on the vertical median lines of the shingles of the first course. The tabs 10
of this course are cut off so as to make the exposed portions of the shingles uniform in contour. If desired, nails or other suitable fastening means may be used for securing the lower ends of the shingles of this course.

This course is completed, and then a third course is laid with the lower ends of the shingles thereof overlapping the upper ends of the shingles of the second course, but with the median lines of the shingles of the third course aligned with the median lines of the first course of shingles. The tabs 10 of each shingle of the third course are then inserted beneath the opposed edges of the adjacent shingles of the second course, and pulled upwardly until the upper edges of these tabs encounter the inclined edges 12’ of the notches 12 of the shingles of the second course. As each course is laid, nails or other suitable fastening means are driven through the corners 16 formed by the notches 12 and into the sheathing. These fastenings are covered by the lower ends of the shingles of the next higher course. In this manner, each shingle is retained in position by four different nails, which are so positioned as to permit free expansion of the shingle without undue buckling. After the third course of shingles is laid, the remaining courses are laid and secured to the roof in the same manner.

The edges of the shingles, positioned as described above, leave a hexagonally shaped portion of each shingle exposed to the weather. These hexagons are slightly elongated in a vertical direction, as shown in Figures 1 and 2. I have already referred to the fact that the edges 12’ of the notches 12 are parallel with the opposite vertical edges 9 of each shingle. This is done to align the lower portions of the vertical edges of the shingles, whose edges are received in the notches, so as not to produce any break in the contour of the hexagonal exposed portions.

From the above description, it will be clearly apparent that I have provided a roofing construction which requires a minimum amount of material for covering a given area, but in which the shingles are so laid that all of the joints between adjacent shingles of each course are overlapped by portions of the shingles of the next higher course to such an extent that it is practically impossible for rain to find entrance through these joints. The overlap of each course onto the next course is amply sufficient to prevent rain from being broken or working its way upwardly sufficient to pass over the tops of the lower courses. It will also be apparent that there are no projecting ends which can be blown upwardly or curled up by the influence of the sun and weather.

The lower ends of the shingles, which are the only portions that project from the roof, are securely anchored to the central portions of the next lower course of shingles, so that it is practically impossible for them to become displaced or for them to warp.

While I have described the preferred embodiment of my invention, it is to be clearly understood that my invention is not limited to these details, but is capable of other adaptations and modifications within the scope of the appended claims.

Having thus described my invention, what I claim is:

1. A roof comprising a plurality of horizontal courses of shingles arranged so that the shingles of successive courses partly overlie the shingles of the next lower course, each of said shingles being substantially keystone in shape and arranged with its smaller end lowermost and its upper corners contacting with the upper corners of the adjacent shingles, each of said shingles having two tabs, one extending laterally from the lower end of each vertical edge and lying beneath the vertical edges of adjacent shingles, the vertical edges of said shingles being provided with notches substantially midway of their length for receiving said tabs, and fastening means extending through said shingles above said notches, the fastening means of each course of shingles being covered by the next higher course of shingles.

2. A roof comprising a plurality of horizontal courses of shingles arranged so that the shingles of successive courses partly overlie the shingles of the next lower course, each of said shingles being substantially keystone in shape and arranged with its smaller end lowermost and its upper corners contacting with the upper corners of the adjacent shingles, each of said shingles having two tabs, one extending laterally from the lower end of each vertical edge and lying beneath the vertical edges of adjacent shingles, the vertical edges of said shingles being provided with notches substantially midway of their length for receiving said tabs.

3. A roof comprising a plurality of horizontal courses of shingles arranged so that the shingles of successive courses partly overlie the shingles of the next lower course, each of said shingles being substantially keystone in shape and arranged with its smaller end lowermost and its upper corners contacting with the upper corners of the adjacent shingles, each of said shingles having two tabs, one extending laterally from the lower end of each vertical edge and lying beneath the diverging edges of adjacent shingles substantially midway between the ends of the vertical edges of said shingles, whereby a substantially hexagonal area of each shingle is exposed.

4. A roof comprising a plurality of horizontal courses of shingles arranged so that...
the shingles of successive courses partly overlie the shingles of the next lower course, each of said shingles having diverging edges extending upwardly from the bottoms thereof, with notches for receiving the edges of the shingles of the next higher course, one side of each of said notches being substantially parallel with the side of the adjacent shingle received by said notch.

5. As an article of manufacture, a key-stone shaped shingle having tabs extending from the diverging edges and adjacent the narrower end thereof, the diverging edges of said shingle having notches formed therein substantially midway between the ends of said shingle, one side of each notch being substantially parallel to the opposite side of said shingle.

6. As an article of manufacture, a key-stone shaped shingle having tabs extending from the diverging edges and adjacent the narrower end thereof, the diverging edges of said shingle having notches formed therein substantially midway between the ends of said shingle, the vertical side of each notch being substantially parallel to the opposite diverging edge of the shingle.

7. As an article of manufacture, a key-stone shaped shingle having tabs extending from the diverging edges and adjacent the narrower end thereof, the lower end of said shingle being substantially narrower than the upper end, whereby said tabs may be inserted beneath the edges of adjacent shingles of a roof without bending.

8. As an article of manufacture, a substantially key-stone-shaped shingle having tabs extending from the diverging edges adjacent the narrower end thereof the length measured parallel to said end from tab to tab being less than the length of the opposite end of the shingle, whereby said tabs may readily be inserted under the diverging edges of adjacent underlying shingles.

In witness whereof, I hereunto subscribe my name this 14th day of April, 1923.

HARRY L. GUY.

Witnesses:

   DANIEL PURNELL,
   CHARLES S. PURNELL.