

**A PORTABLE COVERED HAMMOCK.**

The very comfortable looking provision for the siesta, shown in illustrations, is a device of Italian invention. It possesses considerable merit as a piece of camp equipment with a most desirable compactness and portability. The end supports, as best shown in the enlarged cut, are pivoted to each other, and when the hammock is occupied, are prevented from collapsing by the longitudinal bar uniting their upper ends. This gives a good, solid support for the hammock, keeping it at an easy dis-

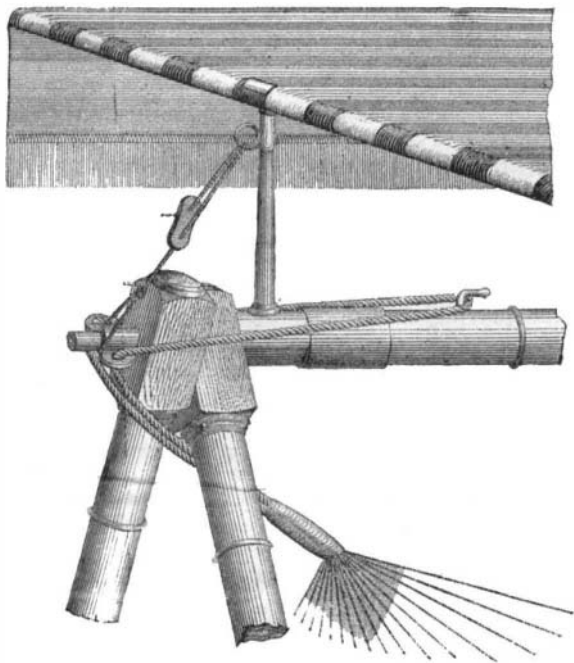


Fig. 2.—PORTABLE COVERED HAMMOCK.

tance above the ground, and making it possible to bivouac at any desired point without the necessity of searching for tree or post. The supporting rope, passing under the angle of the legs, and through the metallic eye pieces at the outer extremity of the pivot, is attached to a hook on the upper side of the longitudinal bar. This arrangement makes the device easy to erect, avoiding the continual tying and untying of ropes, which under certain circumstances may make a hammock more of a bother than a comfort, and at the same time gives an admirable distribution of the strains. The greater the weight in the hammock, the more firmly are the legs and bar united.

Not less important to the comfort of the device is the wide spreading awning, which throws its grateful shadow over hammock and occupant. Its end rods are balanced on short uprights extending from the longitudinal bar, and the desired inclination and stability are secured by the cords attached to the pivoted legs. Perhaps the greatest merit of the invention is illustrated in the figure which shows it packed and ready for shipment. The supporting frame taken apart, and wrapped in hammock and awning, forms a bundle easily gathered into a shawl strap, and a desirable addition to the outfit of invalid or tourist.

**The Ghetto of Rome.**

We learn from the *Building News* that the demolition of the Ghetto of Rome, the oldest Jewish quarter in Europe, dating it is said, from before Cæsar's time, is proceeding rapidly. The archæological commission which is charged with the exploration and protection of ancient monuments has applied to the Italian Government that measures shall be taken for clearing the temple of Jupiter and the portico of Octavia from the buildings which have grown up around them, and also for putting them in such a state of repair as is necessary for their preservation. The commission also requests that the new streets which are to be laid down over the cleared area shall be so planned that their points of intersection shall coincide with the following ancient buildings, which are now within the Ghetto: The theater of Marcellus, the crypt of the Emperor Balbus, and the porticoes of the Flavian Emperors and of the Emperor Philip. It is proposed that these buildings shall be placed on the list of ancient monuments.

**BAUDRE'S SILEX PIANO.**

Among the flint stones that are met with in the chalk formation there are some that when struck with another flint emit sounds of great purity. The tones that are thus obtained with different musical flints are out of all proportion to the bulk and weight of the stone. This is a very curious phenomenon, the explanation of which is not furnished by the fundamental laws of acoustics, and which surely merits being studied by physicists.

As long ago as 1873, I spoke of musical stones as a curiosity worthy of attracting attention. I then promised to return to this interesting subject, but the years passed by, and the singing stones were forgotten. Upon recently visiting the new electric lighting of the Grevin Museum, however, they were casually brought to mind again. After examining this interesting installation, I was walking through the great hall of the museum, looking at the wax figures mounted therein, when I heard some delightful music that attracted my attention. Approaching the spot where these harmonious and pure sounds were being produced, I saw a musician, who, holding two flints, was playing upon a stone piano with wonderful agility, by striking other flints of all shapes suspended by two wires at a few fractions of an inch above a sounding board. I at once made the acquaintance of the player, who was Mr. H. Baudre, a distinguished musician, and a zealous collector of musical stones.

"How did you procure these flints that render so delightful sounds, and from which you get so remarkable music?" said I.

"Ah, sir, it required much time and many trips to collect the 26 stones which you see before you, and which form the two chromatic octaves. It took me more than thirty years (from 1852 to 1883), to search for them in the chalk beds of Haute-Marne, Perigord, Eure, and the Paris basin."

"Are such flints found in all chalk formations?" "I believe not; the innumerable quantities of English flint have yielded me nothing acceptable." "Are there any works that treat of this interesting subject of singing stones?" "I do not know; but I have letters from numerous scientists, who have been pleased to congratulate me, or to give me their opinion."

"Would you communicate a few of them to me? I should like to publish them in *La Nature*." "Very willingly, sir; I will send you my file to-morrow."

The following are a few of the notes that appear to me to give some new information in regard to singing stones:

Mr. Cartailhac, director of the Toulouse Museum, reports that three musical flints were once noticed by a missionary in the village of Chaffa, in the center of the plain of Thumazana, Abyssinia. These stones were hung by threads from a horizontal wooden rod, and were used for calling the faithful to prayers or to battle. They were struck with another flint, and their sounds, which were very intense, were heard from some distance.

In an interesting letter to Mr. Baudre from Mr. J.

stones being different when they are struck in two neighboring places. I should not be surprised if there were a sort of obliqueness in the structure, which would explain the impossibility of preserving the sound when a singing stone is cut or broken.

"There is here an interruption of the sonorous waves that are passing through the body. The great difference in the sounds that two bodies of nearly equal bulk are capable of producing is probably due to a difference in the arrangement of the molecule, which govern the mode of vibrating. I am sorry that I am unable to say more on this subject."

I reproduce a very pleasant letter from Mr. C. Sainte Claire Deville, of the Institute, the learned geologist, whom death robbed science of a few years ago:

"A feeling of remorse seizes me when I reflect upon the incalculable number of stones that I have broken—of flints broken in order to discover in them the traces of a shell, an echinus, or a polyp. And, when I consider all the sacrifices of this kind that my geologi-



Fig. 3.

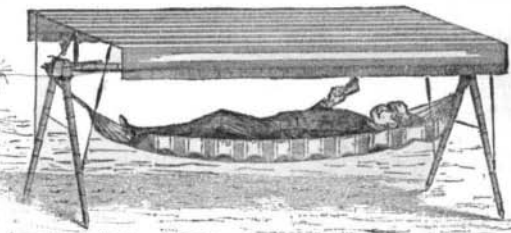


Fig. 1.—PORTABLE COVERED HAMMOCK.

cal confreres are every day making, how many reasons have we not for thinking that we have destroyed specimens which might now be figuring among your sonorous keys! A vain search has been made for the mandrake that sings, but you have done better; you have found the stone that sings—you have discovered the singing soul of the stone! How many such souls, alas, have we sacrificed! You, on the contrary, less barbarous, instead of immolating them to a vain scientific curiosity, have approached them as a friend, have questioned them feelingly, and, when one out of a hundred thousand of them had the vocation, you offered it an asylum, opened the doors of your conservatory to it, and made a virtuoso of it! What superiority! And how much more crushing does such superiority become when we are obliged to recognize that your keyboard of stone offers a true paradox that geologists and physicists do not yet seem able to fully explain."

Mr. Baudre calls his singing stones "prehistoric music." It is not impossible, in fact, that analogous keys were used by our ancestors of the Stone Age. This was Abbot Moigno's opinion.

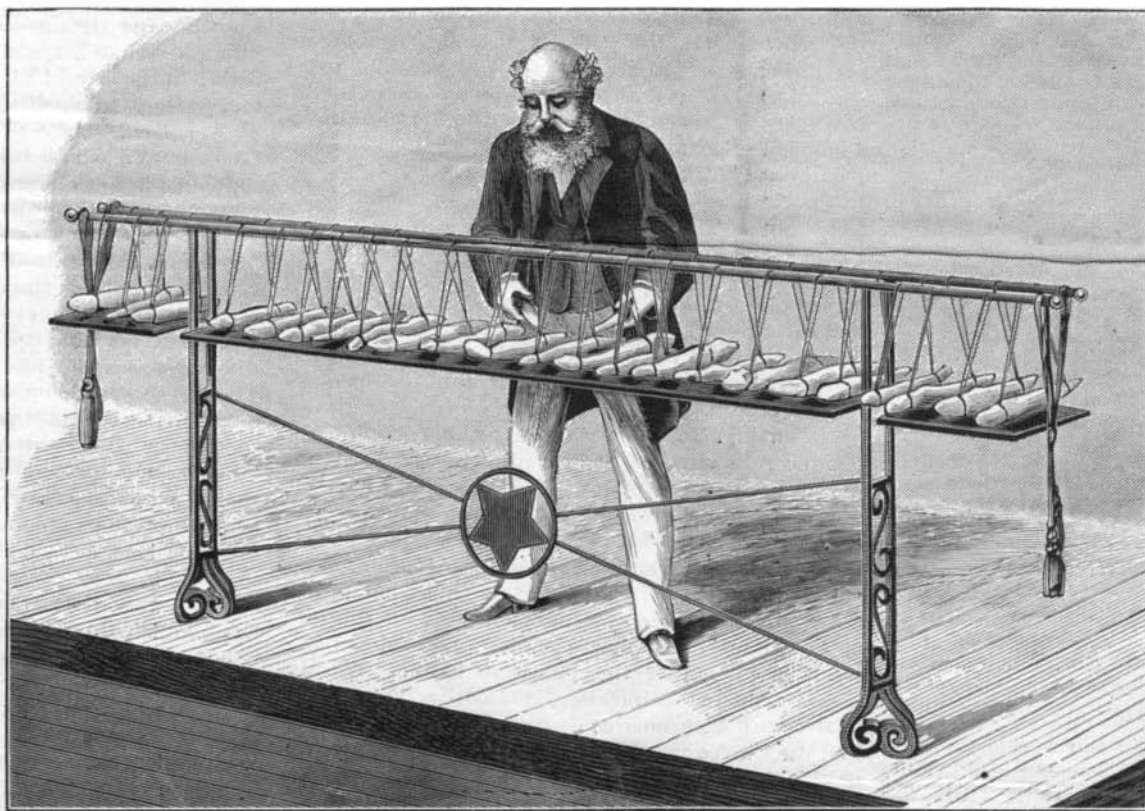
"Who knows," says the old editor of *Cosmos*, "whether, in eagerly excavating in search of relics of the Stone Age, we shall not find a series of attuned flints? Why may not the flint, which was the first arm, the first tool, of prehistoric man, have also been his first musical instrument?"

Mr. Baudre thinks that the reason no musical instruments have been found in prehistoric strata is that searchers have not occupied themselves with native flints, but only carved ones.

The following are some of the peculiarities of these attuned stones: The stone that emits the greatest tone weighs 4½ pounds, while the one that gives the half tone of this weighs 9. This large flint is immediately followed by one of one ounce, that finds its similar in weight only at the end of the series, although the difference in sound is considerable. A 3 ounce stone gives exactly the same note

as another that weighs but 6,000 grains. It will be seen that we have surprising anomalies here to puzzle physicists.—*G. Tissandier, in La Nature.*

Holyoke claims the honor of being the first town in Massachusetts to introduce electric light.



**BAUDRE'S SILEX PIANO.**

Ellis, member of the Royal Society of London, this learned scientist treats of the sonorousness of singing stones. "We know not up to the present," says he, "whether the sonorousness is affected by the form, bulk, chemical mass, or molecular constitution. It is very probable that these stones have internal structures that differ from each other—the sound of the