cakes, from the marc of olive-oil pressing, from woollen rags and waste, from cotton waste used in wiping machinery and packing stuffing-boxes and the like, and from bones from which gelatine and phosphates are afterward to be made, large quantities are extracted. It has also come to be used to some extent in the manufacture of the sulpho-carbonates used for the destruction of the phylloxera.

THE OBSERVATION of the circulation of the blood in living creatures has always been regarded as the most interesting and instructive sight that the microscope could afford. The delicate membrance of the foot of the frog has hitherto afforded the microscopist the most convenient subject for this beautiful demonstration of Harvey's discovery. Perkinje's experiment, by which an observer is enabled to observe the circulation in his retinal blood-vessels, has hitherto been the only method known of actually showing the circulation of the blood in the human subject. Dr. Huber, of Greifswald, it may interest our readers to know, has lately described a simple experiment by which it is possible for an observer to see the circulation of the blood in the blood-vessels of another person. Dr. Huber fixes the head of the subject to be examined in a frame not unlike that used by photographers, on which is fixed a holder for the microscope and lamp. He then draws down the lower lip of the subject upon the stage of the instrument with its delicate inner surface upward for inspection, throws a strong light on the same with a condenser, and focuses the microscope, provided with a low-objective, down upon the delicate network of blood vessels, which can be seen there even with the naked eye. By this simple means the circulation can be observed with the greatest ease and perfection. the value of this novel and beautiful experiment in the study of the abnormal conditions of the blood, presented in various diseases, it is anticipated, will be very great, and important results are expected to flow from it. Huber distinguishes his new process by the terrible name of "cheiloangioscopy."

CRUDE PETROLEUM AS A REMEDY IN CONSUMPTION.—Dr. M. M. Griffith, of Bradford, Pa., reports some astonishing results obtained by the administration of crude petroleum to consumptives. He claims that out of twenty-five cases of well marked tuberculosis so treated twenty are to all means of diagnosis cured; the rest have been materially benefited and none have been under treatment more than four months. The nausea attending the use of ordinary crude petroleum led him to adopt the semi-solid oil that forms on the casing and tubing of wells. This, made into three to five grain pills by incorporating any inert vegetable powder, was administered from three to five times a day in one pill doses. This first effect, he says is the disappearance of the cough; night sweats are relieved, appetite improves, and weight is rapidly gained. It is to be hoped that Dr. Griffith has not mistaken some self-limiting phase of throat or bronchial disorder for true consumption of the lungs; also that continued trial of the alleged remedy will justify the high opinion he has formed in regard to its efficacy.

A CURIOUS ACOUSTICAL ILLUSION.—M. Plumaudon, of the Puy de Dome observatory, has pointed out a curious acoustical illusion which some of those who use a pair of telephones in receiving may have observed. With a single telephone held, say, to the right ear, the transmitted voice appears to come from a distance to the right; while with a telephone held to the left ear, it seems to arise from the left of the listener. With a telephone to each ear, if one ear be less sensitive than the other, or if the telephone be held farthest from that ear, the voice shifts to the side of the other ear; and if both ears hear alike and both instruments are equally near their respective ears, the voice apparently proceeds from in front of the observer.

ELECTROTYPING WITH IRON.—Herr Bottger describes a process for steeling copper plates by electrolysis. One hundred parts of ferrous-ammonia sulphate, together with 50 parts of sal-ammoniac, are dissolved in 500 parts of pure water, a few drops of sulphuric acid being added to acidulate the solution. The copper plate is connected to the negative pole of a battery of two or three Bunsen elements, an iron plate of equal size being employed as an anode. The solution is maintained at from 60° to 80°. The deposit of iron is of a hard, steel-like quality, and is very rapidly formed.

A DRY coating for basement walls may be made as follows: Take 50 pounds of pitch, 30 pounds of resin, 6 pounds of English red, and 12 pounds of brickdust. Boil these ingredients, mix them, and stir them thoroughly, then add about one-fourth the volume of oil of turpentine, or enough to make it flow easily, so that a thin coating may be laid on with a whitewash or paint brush. Walls thus coated are proof against dampness.

THE NEW METEORITE

The *Scientific American* in its issue of March 6, gave a brief account of a new meteorite, discovered near Chulafinne, Ala., by Mr. John F. Watson, and now in the posression of Mr. Edison's expert mineralogist, Mr. W. E. Hidden, of Newark, N. J.

We now copy for our readers a side view of this interesting object, and give a representation of the Widmannstaettian figures which it exhibits. Upon analysis of the meteorite, its constituents are found to be approximately as follows: Iron, 82 per cent.; nickel, 7 per cent.; phosphorus about the same as ordinary steel; and of copper and carbon only a trace. It is about as hard as copper, and exhibits about the same tenacity under the cutting tool.

This in common with other metallic accrolites is very heterogeneous, as indicated by the marked figures developed on the polished facet by the action of ultric acid. Mr. Edison suggests that "These lines are without doubt a map of the streets of the New Jerusalem.

Meteorites of this size (31 lb.) are not extremely rare, and they have been found of all sizas, weighing from a few ounces to 25 tons. It is now generally conceded that these strange bodies fill the places between the orbits of the planets and swing around the sun like so many miniature worlds, until by unexplained causes they are brought within the attractive influence of the larger planets, when they gravitate toward the superior body.

Kepler's idea that there were more small bodies flying about in space than there are fishes in the ocean, seems to find support in modern discoveries.

HYDROGEN AS A CONDUCTOR OF HEAT.

A very interesting experiment is described as follows: "A very simple method of showing that hydrogen is a better conductor of heat than other gases, which is probably due to its metallic character, is described by Carl von Than. Two strong copper wires, several inches long, are held parallel to each other, but not in contact, by slipping over them two short pieces of glass tube, one an inch from the end, the other in the middle, and filling the tubes with plaster of Paris. The short ends of the wire are bent twice at right angles, so as to be an inch apart at the ends, and are connected by a very fine platinum wire. The wires are kept in a vertical position by clamping the second tube to a retort-holder or other support. The longer ends of the wires are bent apart and attached to the poles of a battery of three or four cells. The wires being insulated from each other, the current passes through the fine platinum wire, heating it red-hot. If a bell-jar of hydrogen be held over it, thewire ceases to glow, because heat is conducted so rapidly away. On bringing it into the air it begins to glow."

In connection with this we remark, that experiments showing that a platinum wire made red-hot in the air by an electric current, will cool down when placed in an atmosphere of hydrogen, is a very old one; second, that the method above described to make the experiment is objectionable, for the reason that when a bell-jar of hydrogen is brought over the wire, the latter comes first in contact with the mixture of air and hydrogen, always present at the lower edge of an open bell-jar filled with hydrogen, forming an explosive mixture which the red-hot platinum wire may ignite, and soon burns up the hydrogen in the jar, bringing the experiment to a premature end.

A better way and one that we always used when making this experiment before our classes in physics (some 20 years ago), was to take a wide glass tube, open at both ends, in which were inserted corks, each perforated with two holes, one for the conducting copper wire and one for a short glass tube, for the inlet and outlet of gases; the conducting copper wires were connected interiorly by a spiral of platinum wire, and one of the glass tubes exteriorly attached to a rubber hose, for the supply of gas. When the platinum spiral is made red-hot by the electric current, and hydrogen is introduced through the tube, the red-hot wire may ignite the mixture of hydrogen and air and blow out the corks, therefore we always first introduced carbon-dioxid (carbonic acid gas, so as to displace the air with its oxygen; when the tube was filled with this gas and the spiral in full glow, the hydrogen was let in, the heat diminished, and the spiral lost its glowing appearance. By the re-admission of the carbon-dioxid it became glowing again.

The experiment may be varied and made more striking by passing through one of the corks two glass tubes, one for hydrogen and one for carbon-dioxid, when the platinum spiral may be made hot and cold in succession by admitting carbonic acid or hydrogen gas alternatively.—*Manufacturer and Builder*