wonderful Things That are Near.
The Philadelphia Press says: 'Flying is solved. The principle is known. A mechanical expedient is all that is now needed to make it successful. Practical flight is to-day not more than five or ten years off.
'A glowworm makes light with about one threehundredth part of the force used in ordinary artificial light. When men know how to make light as cheap, streets and homes will be as light as day for a mer fraction of what light now costs. This is near. Vacuum illumination without incandescence is already in full operation, and in a year or two should cut down the price of light to a sixth of its current cost, and in five or ten years light in a city may be, like water, turned on in every house at will.
"Compressed air has long been known to be the best way, theoretically, to store force for use in transportation. There is no waste and no deterioration The need is a cheap and efficient motor to apply com pressed air to city transportation. If this can be done first the trolley poles and wires will come down, next the horseless, air-compressed motor carriage will do all the work of city delivery.
"When these changes come the only use for gas will be for cooking-if this is not done by electricity. Factories, also, before many years, will be run by transmitted electric power. Thishas begun to be done and in five or ten years will be completed, and the factory fire and boiler will be a thing of the past.
"The city of the future, and no very distant future, will have no trolley poles or wires and no horses. All movements will be on rails bs silent air motors or by horseless carriages equally silent. Ali pavements will be asphalt. Unlimited light will be as cheap as unlimited water is to-day. No coal will be delivered at private houses and no ashes taken from them. With no horses, no coal and no ashes, street dust and dirt will be reduced to a minimum. With no factory fires and no kitchen or furnace fires, the air will be as pure in the city as in the country. Trees will have a chance Houses will be warmed and lighted as easily and cheaply as they are now supplied with water.
"A city will be a pretty nice place to live in when the first twenty years of the twentieth century are passed."

## CURIOUS LOCOMOTIVE EXPLOSION IN PERU

 To the Editor of the Scientific American :Thinking it may interest some of the readers of your paper, 1 inclose you a photograph of a locomotive after the explosion of her boiler; an accident which recently took place on the Lima and Chorrillos Railway on April 8. The engine, No. 13, of au up train, with some seven or eight well flled coaches, left Chorrillos at the usual time, apparently in good order, arriving at the station of Barranco ten minutes later, where a crowd of passenger awaited the train. Un starting, the boiler burst, with result as shown in pho shown in pho-
tograph. Soue tograph. Soume pieces of the wreck wer thrown to a great distance, and the shock was felt at a distance of three miles. Although this occurred in occurred in streets of the streets of the town, ther were but two or three persons severely injured. Con siderable dam age was done, however, to the walls and windows of
houses in the vicinity of the railway station. The engineer and fireman escaped with a few scalds. The boiler seemed to blow out from underneath, and it is very remarkable that so little damage was done.
The accident was undoubtedly due to low water, high pressure and sudden opening of the throttle on starting the heary train. J. Howard Johnston. Lima, Peru.


CURIOUS LOCOMOTIVE EXPLOSION IN PERU.
wich is secured by the wedge action of ribs in the grooves, coupled with the strips of babbitt metal at the ends of the bearing and cup, provide an effective dustproof bearing.

A grand-nephew of Jacquard, the inventor of the loom and the last of the family, has just died at Lyons, where he was a concierge.

How Best to Punish Little Folks.
In a recent number of Science, Professor J. F. Morse, of the Wisconsin University, in Madison, out lined a series of tests which be wants to have parents make with very young children, with a view to finding out the best way to secure respect for authority, and then a report of the result is solicited for comparison with similar statements. The collection of such infor wation may at first seem a little absurd, for every intelligent observer of children knows that the latter differ so greatly in health, brigh tness, temperament and other qualities that no uniform plan of procedure would give the best results. One child must be managed in one way, and another in another, in order to secure the highest success. Nevertheless, if enough facts could be gathered, it might be possible to classi fy the little folks who had been examined, so that the best policy for each set could be pointed out. Parents and teachers might find a good summary of these ex periments very instructive. A variety of expedient would be suggested, and one could try that which seems to have worked best in cases like those imme diately at hand, provided that all others had failed.
Professor Morse suggests that most of these experiments be tried on children whose ages are between two and six. Various offenses are specified, like naugntiness at table, sauciness, taking a playmate's toy, misbehavior while the father has been away from home, and lack of cleanliness; and such punishment are suggested as sending away from the table, shut ting up in a room, whipping or spanking, sending to ting up in a room, whipping or spanking, sending to
bed without a goodnight kiss. The effect of each is bed without a goodnight kiss. The effect of each is
to be carefully recorded. The attempt is to be made, too, to find out whether praise for good behavior goes further than censure for wrongdoing or neglect. And the possible influence of pretending to cry is to be watched. Professor Morse will send instructions to those who are willing to co-operate in this investigation, and asks people to send him their names and ddresses for that purpose. He says. "The informa tion secured in response to this request will be used in a general and statistical way without publication of names." Those who participate would be assisting in names." Those who participate would be assisting in
a cause of great value, and would be doing philanthropic service.
improvements in the New Photography
Some sensitized metal plates were submitted to the London Lancet by Mr. Strauss Collin, of Bush Lane House, Cannon Street, E. C. They have since obtained excellent results with these in the Lancet labora ed excellent results with these in the Lancet labora roainal" pre ferably as a developer, and fixed in the hyposulphite bath. Very thorough washing is the next step. The image which first appears on developing vanishes in the hyposulphite solution.

Whenthe plate, after washing, is, however placed in a solution of per chloride of mercury, the image reap pearswith great distinct ness and with excellent detail. For med ical work the employment of these plates offers undoubted advantages. Thus the thin sheeting upon which the sensitized film is spread may be adapted to any shape, and, unlike glass plates, is not easily fractured, so that it may be placed under the body of a patient without risk of breaking. Moreover, as will be gathered from the foregoing description of the process of development, a positive not unlike a ferrotype is at once ohtained. The "tones" are good and the plates fairly rapid, the exposure we adopted in the case of the ankle being three minutes.

