

mount is a higher structure than the retreating human face. These facts have long been familiar to anatomists, but I am not aware that the inferiority of the human to the brute countenance has heretofore been considered a scientific conclusion by any one. Yet that inferiority is incontrovertible and almost self-evident.

The preceding statements render it clear to the reason that man is not in all respects the highest animal—and that it is a prejudice of ignorance that assumes that the specialization of the brain marks man as above all animals in the zoological system. It does give him a supremacy by his greater power of self-maintenance in the struggle of the world, but that has nothing whatever to do with his morphological rank. There is nothing in morphology that anywise justifies assigning, as is actually done, an almost infinitely greater systematic value to the specialization of the brain and a specialization of the limbs, stomach, teeth, face, etc., hence it is impossible to call man even the highest mammal. It is also doubtful whether mammals would be regarded as the highest class of the animal kingdom, were they not our nearest relatives. Let us beware of claiming to be the head of organic creation, since the Carnivora and Ungulata are in many respects higher than we. I believe that it is just as unscientific to call any one animal species the highest, as to pitch upon any one plant to stand at the head of the vegetable kingdom.—C. S. Minot.

Miscellaneous.

APARTMENT HOUSES.

A Chicago paper says that there is every prospect that within five years New-York will have the largest and best-appointed apartment houses in the world. Every week some new plan is filed, and some of the later designs are conspicuous for attractive novelties that were never thought of when these great buildings were first erected. In one of the flat buildings going up on Madison avenue there is to be a garden on the roof; another proposes to have a Turkish or Russian bath for its inmates. The most magnificent scheme of all is that of W. H. Post, whose building, covering an entire block, is to be located near Central Park. It will have 200 suites of rooms, each occupying on an average 25 by 85 ft. space. Mr. Post proposes to invite its tenants to share the benefits of certain co-operative features. It is intended to supply some articles of food daily at wholesale prices. Coal will be bought by the boat-load and delivered; dressed meat or cattle will be contracted for at wholesale rates, and every effort apparently will be made to abolish the corner groceryman.

By far the most extensive improvement in the shape of apartment houses is the forthcoming erection by Jose F. De Navarro, of ten mammoth houses east of Seventh Avenue, between Fifty-eight and Fifty-ninth streets. The houses will be nine stories high. Granite, brown stone, Ohio stone, Milwaukee and Philadelphia brick will be used. They will be in the Moorish style of architecture, and it is estimated that their total cost will be \$800,000. Contracts have just been let for the construction of the four houses nearest Seventh Avenue. Edward Clark's family hotel, the Dakota, will be completed by next spring at a cost of nearly £300,000. It is to be eight stories high and will cover the entire front on Eighth Avenue, between Seventy-second and Seventy-third streets.

It is reported that James Gordon Bennett proposes to erect the finest hotel in the world upon the block bounded by Fifth and Madison avenues, Thirty-eighth and Thirty-ninth streets. Some of the buildings are too valuable to be removed, and they will be utilized in a sort of composite structure affording a great variety of apartments for the guests. The lessees, it is said, will be the gentlemen who now have charge of the Brevoort House.

The demand for suites of rooms in apartment houses is far in excess of the supply. It is understood that, although far from completion, the Dakota is bespoken to the extent of two-thirds of its accommodations.

UNJUST STRIKES.

Some months since a labor trouble occurred at the starch manufactory of the Messrs. Duryea, at Glen Cove, L. I. The Knights of Labor not only declared the works on strike, but issued a circular "boycotting" the starch made by this firm. The Messrs. Duryea again and again denied the charges made against them on which the "boycotting" was based, and in-

vited an investigation, but an officer of the Knights of Labor, known as the "Grand Statistician," wrote a letter sustaining the charges. Some time since the editor of a labor paper in Philadelphia investigated the charges and found them false and so stated, and immediately he was denounced as a traitor and his paper "boycotted." Now we see that at last a committee of the Knights of Labor have investigated the charges and found them untrue, and it is reported that they have expelled the "Grand Statistician." For even this tardy act of justice, so rare an occurrence among labor organizations, the Knights of Labor are worthy of commendation. It shows a wonderful advance in courage. A few years ago no officer of a union, no matter how just such an act might have been, would have dared to have countenanced such a withdrawal of charges as this, and, in many unions to-day it could not be done. But would it not have been better not to have had occasion for such an act of justice, by seeing to it that injustice was not done in the first instance? Is there not a too prevalent idea among workmen that all the right and justice is on their side and all the wrong and injustice on the other, and that a strike, because it is a strike, and without any reference to the facts, is always "just and right, and a demand for their rights?" There are labor papers in this country that never speak of a strike as anything but just. We have in mind a case where some workmen struck, and the union with which they were connected ordered them back to work, as the strike was unjustified, and yet journal after journal had notes of the tyranny of the manufacturers and the justness of the cause of the workmen. In many instances strikes are undertaken without judgment or reason, and persisted in from a foolish idea that it is cowardly or injurious to "back down." Such acts as this of the Knights of Labor will go far to lessen strikes, and when the leaders of unions or the cool heads dare speak out and condemn unwise and unjust strikes, they will be still less frequent.—Metal Worker.

A NEW USE FOR OLD TIN CANS AND SCRAP TIN.—According to the *Berg-und-Hüttenmännische Zeitung*, a better method for utilising old tin cans than simply to melt off the solder has been devised. E. Rousset first heats the tin, old or new, in an oxidising flame, which burns up all the pure tin and that combined with iron. When this is stopped the scraps of iron are seen to be covered with a brown and brittle crust, the upper layer consisting of oxide of tin, the lower of magnetic oxide of iron. It is passed through rollers and then forms a powder that contains both oxides. The iron that remains after sifting out the powder makes good wrought iron or cast iron, but is particularly fitted for precipitating copper. The oxide of tin, although mixed with oxide of iron, can be easily worked into tin, and the metal obtained from it is free from sulphur and arsenic. But will it not contain traces of lead?

THE AIR ENGINE AS APPLIED TO ELEVATORS.

The illustration given herewith shows the application of the air engine, manufactured by the Sherrill Roper Air Engine Co., as a hoisting power to passenger elevators.

The engine known very favorably for some time as the Sherrill Roper air engine, by reason of its safety, extreme simplicity of construction and its economy of operation, is excellently adapted for this species of service.

A few words respecting the principles of its construction and action will serve to make this clear. In this engine the air of the temperature of the surrounding atmosphere is drawn into the air pump; from this it is forced directly into the fire, which is contained in an air-tight furnace. Combustion and expansion ensue, and as the result of the expansion of the air and of the combustion products, a considerable pressure is developed in the fire-chamber. The charge of gases is then admitted into the cylinder, in which it is utilized precisely as steam would be, and is exhausted through valves in the same manner.

From the above explanation, the engine, as may be imagined, is simple, and in its design the makers have made it also very compact. The heated air is conducted from the furnace through the shortest possible pipes, thus insuring the utilization of the gases of the furnace to the greatest possible extent, and reducing the loss of pressure by cooling to a minimum. To insure durability, the furnace is lined with heavy fire brick, and the air being brought into contact with the fire, there are no iron plates or other heating surfaces to be destroyed by burning out.