bricks, that a brick building up to this time has meant invariably a dull red pile, unrelieved by any other tint except in occasional instances, and then by the introduction of a white that would turn green, or a black that was not black when viewed from certain angles. George E. Street, one of the ablest writers of the age on art and architecture, says: 'At the present day there is, I think, absolutely no one point in which we fail so much, and about which the world in general has so little feeling, as that of color. Our buildings are, in nine cases out of ten, cold, colorless, insipid academical studies, and our people have no conception of the necessity of obtaining rich color.' And again: 'Our buildings should, both outside and inside, have had some of that warmth which color only can give; they should have enabled the educated eye to revel in bright tints of nature's own formation, while to the uneducated eye they would have afforded the best of all possible lessons, and by familiarizing it with the proper combination of color and form, would have enabled it to appreciate it.'"

The Morse Building as it stands, independent of the ground, has cost about $175,000, rendering it one of the cheapest buildings, all things considered, which have been erected in this city since 1861. It will, no doubt, prove a profitable investment to its owners, while being a characteristic example of new ideas in the construction of office buildings.

UTILIZING IRON AND STEEL SHEARINGS.

Thin shearings, or pieces of iron or steel—such, for example, as the scrap from cutting iron sheets for tin-plate making, and from various other operations in which thin sheet iron or steel is employed—are very frequently re-worked with other metal, either in the puddling furnace or in the refining furnace. In some cases the scrap is placed loose in the puddling or refining furnace, but more commonly it is made into bundles. In any case the binding only serves to keep the material together while heating up, for the bundle then falls apart, allowing the metal to mix with the remainder of the charge upon the bed or hearth of the furnace. There is much loss in this process of re-working, 30 cwt. of this scrap not producing more than a ton of manufactured metal. According to the invention of Mr. J. H. Rogers, of Llanelly, England, the shearings or waste pieces of thin iron or steel are compacted together into masses or blocks, and these are placed in a re-heating furnace, and, when heated to a proper temperature, are consolidated under a steam hammer, or in any other convenient way. In this manner he can obtain a ton of manufactured metal from 23 cwt. of shearings. In order to form the shearings or pieces of iron or steel into masses or blocks ready for heating, he places them in a box or mold, and with a steam press or other suitable machine he presses the contents of the box or mold until a compact block is obtained. The mass thus compacted is withdrawn from the box by an opening provided for the purpose, and which is closed by a door while the material is being molded. The compacting of the scraps is performed in a cylinder or mold, wherein they can be compressed by a kind of steam hammer. To discharge the molded mass, the box is opened, and by means of a bar inserted at a suitable hole it is forced out in a condition to go into the re-heating furnace. In the furnace, and in the subsequent hammering, the blocks or masses are treated in the same way as piles or blooms.

TELEPHONES WITHOUT DIAPHRAGMS.—M. Ader reports some experiments confirmatory of the views of Du Moncel, upon telephones without diaphragms. He has often observed that the reproduction of words and sounds, which are occasioned by the interruption of currents, can be made in these telephones with a different quality, and upon a higher or lower pitch, according to the degree of tension which is given to the iron wire; but if the fundamental sound of the wire is muffled by holding it between the fingers, the sounds which are reproduced become dull, a little more feeble, and always in the same tone. He concludes from his experiments, that the sounds which are produced by a magnetic nucleus are probably the result of shortenings and lengthenings of the wire, determined by rapid magnetizing and demagnetizing, the molecular vibrations of the magnet producing the effects of the telephone, and the iron diaphragm only strengthening the vibrations, and rendering them more sensible to the ear by its own vibrations. We know it is possible to replace the iron plate of the receiver by non-magnetic substances, as a plate of copper, glass, wood, and even card-board. The magnet does not exercise any particular action upon the diaphragm. The mistake was not in the fact but in the cause, the substance of the diaphragms receiving the molecular vibrations and communicating them to the ear.

ROOM DECORATION.

BY WILLIAM HODGSON.

I am not astonished at the fact that many persons have grey and white drawing-rooms, when I think of the hideous effects sometimes shown me as decorations, where, perhaps a pale emerald green, a grey and a ghastly pink—the very pink that will not harmonize with the crude green in question—are the colors employed. The hideousness of some decorations, so called, is beyond expression, and white walls are infinitely preferable to such.

A *dining-room* we generally make rather dark; citrine, or blue of medium depth, and with greyish hue, looks well for the walls of a dining room, and a maroon dado is very suitable. The emblems of the feast—fish, birds, and beasts—may sometimes be incorporated with the decorations of a dining-room with advantage. The effect of lightness is usually given to drawing-rooms. I think we generally make these rooms too light; we give to them a coldness which is freezing, rather than that depth of tint which gives a snugness, and that cheerfulness which promotes conversation. Furniture cannot look well against a very light wall, and against this as a background every object seems cut out with offensive sharpness and hardness.

Bedrooms are wrongly made very light. The decorations of a bedroom should be soothing. In the hour of sickness we all feel this—it is not whiteness to dazzle that we want, it is that which is soothing and which conduces to rest. There must be an absence of spots or specially attractive features from all good decoration, but in a bedroom this is especially necessary.

A *smoking-room*, or "sanctum," is the one room where we may indulge in the grotesque and humorous, but the grotesque must always be clever and vigorous.

In these days of competition, when the brain is very active, and the nerve force is kept for many hours together in constant play, it is peculiarly desirable that our rooms be soothing in effect and snug in appearance. If special richness is to be indulged in, bestow it upon the library.

ON THE WOOD-WORK OF ROOMS.

If the wood-work of a room is simply varnished, or stained and varnished, then the decoration of the walls and ceiling must harmonise with it, for it is a tint we cannot alter; if, however, it is painted, then it can be colored as may be required. Whatever acts as a frame to something else is better darker than that which it frames, or in some way stronger in effect. A cornice, as the frame of a ceiling, should be stronger in effect than the ceiling; in like manner a skirting which frames the floor should always be dark. I have never yet seen a room which was altogether satisfying to the eye where the skirting was light. I often make the skirting black, but in this case I generally varnish the greater portion of it, yet leave parts "dead," thus getting a contrast between a bright and dead surface. I sometimes run a few lines of color upon its mouldings, but I never in any way ornament it. It should be retiring yet bold in effect; hence its treatment must be simple. If not black it may be brown, rich maroon, dark blue, or bronze green. A dark color gives the idea of strength; that portion of a wall on which weight appears especially to rest should be dark.

I like to see the wood-work of a room generally of darker tint than the walls. A door should always be conspicuous. I find that a room almost invariably looks better when the doors are darker than the walls, and the advantage of dark architraves must be obvious to all who have tried them. A door should rarely, if ever, be of the color of the wall, even if of darker tint; this is a resort of those who cannot form a harmony with the wall color. If a wall is citrine the door may be dark, low-toned Antwerp blue, or it may be of a dark bronze green, but in this case a line of red should be run around the inside of the architrave. If the wall is blue a dark orange-green will do well for the door, but a line of red round the door will improve it, or the door may be an orange-maroon. If the wall is bright turquoise in color the door may be indian-red (vermillion brought to a beautiful tertiary shade with ultramarine). These are mere *illustrations of numerous harmonious combinations which* may be made, but they serve to show my meaning.

The architraves of doors may often be varnished black, or consist in part of bright and in part of "dead" black; if the architraves of the doors are black, one or two lines of color may be run upon them. If the lines are very narrow, say 1.16 in. in width, they may be of the lightest colors; if broad, say ¾ in., they should be much subdued in tone, and hardly brighter in tint than the color of the wall. I rarely find it necessary to decorate