

**Graham F D & Emery T J (1924) Audels Masons and Builders Guide #1. Theo. Audel & Co. New York.**

MORTAR

The principal mortars are:

1. Lime mortar
2. Lime-cement mortar
3. Cement mortar
  - a) Portland
  - b) Natural

*Lime mortar* is recommended for ordinary house construction. It may be used except where very heavy loads have to be carried, as on brick piers, or walls much cut up by window or door openings, or in very exposed situations. It should not be used for exterior basement walls subject to a great deal of dampness...

*Cement-lime mortar* has come in favour within the last few years. Tests show it to be stronger in compression and better than Portland cement mortar, when properly proportioned.

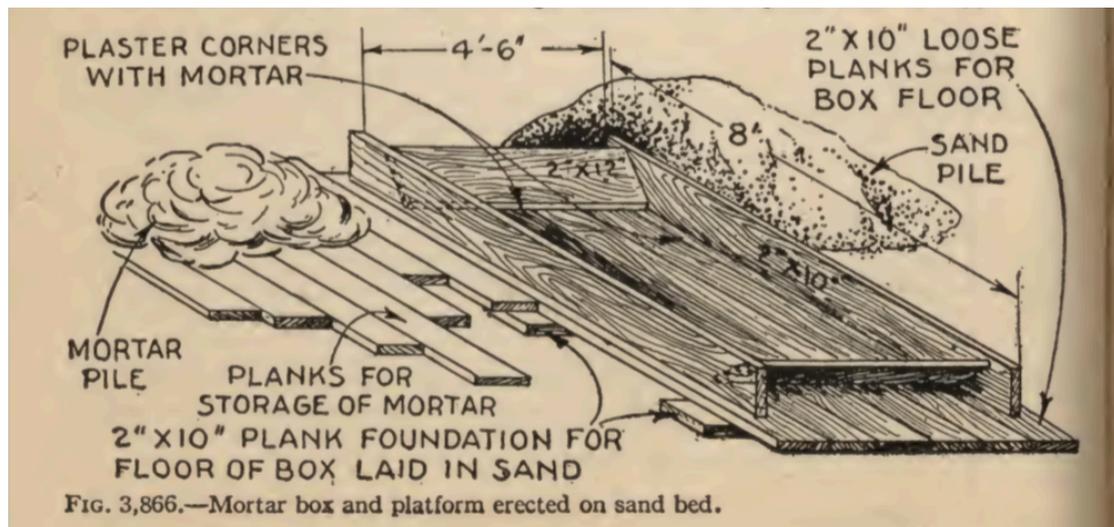
**Lime Mortar.** ...is composed of sand and either slaked lump lime or hydrated lime....Lump lime is slaked by pouring water on it....When water is added, it should slake into a fine smooth paste without leaving any residue...

**Hydrated lime.** It sometimes happens that lime slaked on the job may, owing to carelessness or lack of skill, be burned or otherwise spoiled. (but more now being slaked at the plant in controlled conditions)....It should be used where experience labor cannot be had.

**Apparatus for Mixing and Handling Mortar:**

1. Screen
2. Mortar box
3. Mortar platform
4. Hoe
5. Shovel
6. Hod

...**Mortar Box.** In suburban districts the mortar box is usually built on the ground or in the street at the most convenient place for water and use....



**Mortar Platform.** In the preparation of mortar...a platform is usually provided for stacking a supply of the mortar for the hods, while additional mortar is being mixed in the mortar box...

### Preparing Lime Mortar

The various operations in preparing the mortar for use are:

1. screening the sand
2. slaking the lime
3. proportioning
4. tempering

the sand should always be screened, or much time will be lost by the bricklayers in having to dig out the larger stones while they are spreading the mortar....

Slaking the Lime. ...Lump lime must be prepared or slaked at least one week before it is used for mortar. ...*(laid, not mixed to mortar after one week).*

In slaking the lime, form a shallow basin of screened sand in the mortar box. Place the lime in this basin and pour water over the lime until thoroughly slaked...In the sand basin it steams and boils...when the lime is properly slaked it is reduced to a slimy consistency by the labourer, using a hoe.

**Proportioning the Sand.** As soon as the slaking process is complete, mix the sand with the paste and shovel it out onto the wood platform, to remain until tempered for use.

**Tempering Mortar.** Working the mortar and adding water to bring it to a proper consistency for actual use is called tempering. Mortar should be tempered until *it slides easily off the trowel*...and should be worked until all white spots of lime disappear, otherwise they will swell and pop after the mortar is laid.

