## SOLDERING.

A list of thirty-two kinds of solder has recently been compiled as follows. 1. Plumber's solder, lead two parts, tin one part. 2. Tinman's solder, lead one part, tin one part. 3. Zinc solder, tin one part, lead one to two parts. 4. Pewter solder, lead one part, bismuth one to two parts. 5. Spelter solder, equal parts of copper and zinc. 6. Pewterer's soft solder, bismuth two, lead four, tin three parts. 7. Another, bismuth one, lead one, tin two parts. 8. Another pewter solder, tin two parts, lead one part. 9. Glazier's solder, tin three parts, lead one part. 10. Solder for copper, copper ten parts, zinc nine parts. 11. Yellow solder for brass or copper, copper 32lb., zinc 29lb., tin 11lb. 12. Brass solder, copper 61.25 parts, zinc 38.75 parts. 13 Brass solder, yellow and easily fusible, copper forty-five parts, zinc fifty-five parts. 14. Brass solder, white copper 57.41 parts, tin 14.60 parts, zinc 27.99 parts. 15. Another solder for copper, tin two parts, lead one part. When the copper is thick, neat it by a naked fire, if thin, use a tinned copper tool. Use inuriate or chloride of zinc as a flux. The same solder will do for iron, cast iron, or steel. If the pieces are thick, heat by a naked fire or immerse in the solder. 16. Black solder, copper two, zinc three, tin two parts. 17. Another, sheet brass 20 lb., tin 6lb., zinc 1lb. 18. Cold brazing for fire or lamp, fluoric acid 10z., exymuriatic acid 10z., mix in a lead bottle. Put a chalk mark on each side of where you want to braze. This mixture will keep about six months in one bottle. 19. Cold soldering without fire or lamp, bismuth 40z., quicksilver 40z., block-tin filings 10z., spirit salt 10z., all mixed together. 20. To solder iron or steel to brass, tin three parts, copper thirty-nine and a half parts, zinc seven and a half parts. When applied in a molten state it will firmly unite the metals first named to each other. 21. Plumber's solder, bismuth one, lead five, tin three parts. 22. White solder for raised brittania ware, tin 100lb., hardening 8lb., antimony 8lb. 23. Hardening for brittania, to be mixed separately from the other ingredients, copper 2lb., tin 1lb. 24. Best soft solder for cast brittania ware, tin 8lb., lead 5lb. 25. Bismuth solder, tin one, lead three, bismuth three parts. 26. Solder for brass that will stand hammering, brass 48.26 parts, zinc 17.41 parts, silver 4.33 parts, add a little chloride of potasium to the borax for a flux. 27. Solder for steel joints, silver nineteen parts, copper one part, brass two parts, melt all together. 28. Hard solder, copper two parts, zinc one part, melt together. 29. Solder for brass, copper three parts, zinc one part, with borax. 30. Solder for copper, brass six parts, zinc one part, tin one part, melt all together well, and pour cut to cool

31. Solder for platina, gold with borax. 32. Solder for iron. The best solder for iron is good tough brass with little borax. In soldering, the surfaces to be joined are made perfectly smooth and clean, and then covered with sal ammoniac, resin, or other flux; the solder is then applied, being melted on and smoothed over by a tin soldering iron. In soldering fluid take 20z. of muriatic acid, add zinc until bubbles cease to rise, and add half-teaspoonful of sal-ammoniac.

## DEFINITION OF "PARTY WALL."

Builders will be interested in a point of law relating to the definition of a "party wall" which recently came up for argument in the English courts. A firm of storekeepers were summoned to appear in court on the charge of having violated the London building law by piercing openings in a party, wall, the section of the law bearing on the case reading as follows: "Every party wall shall be carried up of a thickness in a building in the warehouse class equal to the thickness of such wall in the topmost storey above the roof flat or gutter of the highest building thereto to such a height as will give a distance of at least 3 feet measured at right angles to the slope of the roof." The wall in question divided one portion of the

defendants, warehouse, one storey in height, from another portion, five stories in height. The defendants contended that only the portion of the wall to the height of the one-storey part of the ware-house could properly be classed as a party wall, and that above this height it should be classed as an exterior wall. The court sustained the defendants in this contention.

TO REMOVE PAINT OR VARNISH,-The following recipe for removing old paint or varnish is from the Beyerische Gewerbezeitung, a Cerman publication:
Two parts of ammonia are shaken up with one part of spirits of turpentine, forming a permanent emulsion, which is applied to the paint to be removed. In a few minutes, it is stated, the paint will be so softened that it can be scraped or rubbed away.

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