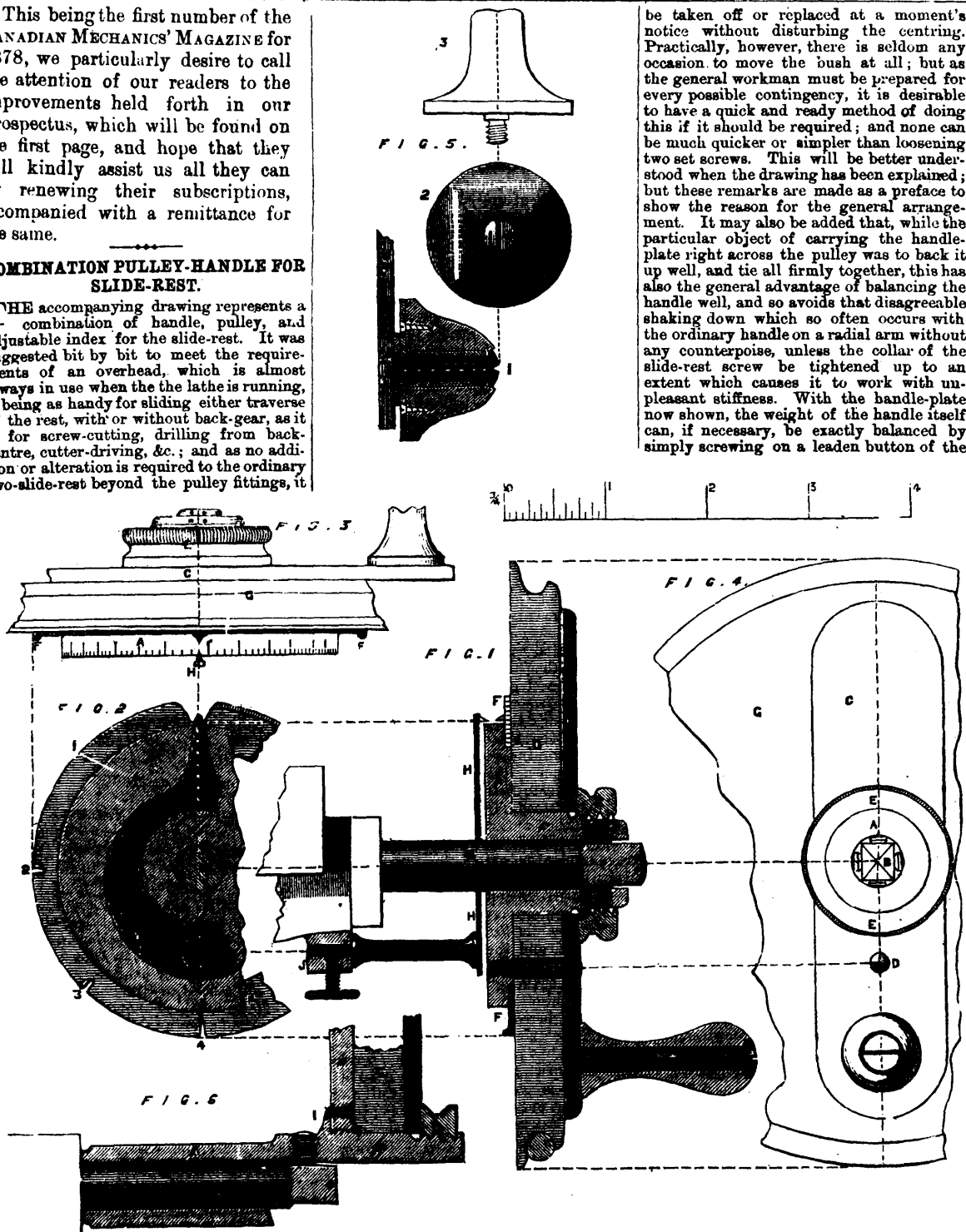


This being the first number of the CANADIAN MECHANICS' MAGAZINE for 1878, we particularly desire to call the attention of our readers to the improvements held forth in our Prospectus, which will be found on the first page, and hope that they will kindly assist us all they can by renewing their subscriptions, accompanied with a remittance for the same.

COMBINATION PULLEY-HANDLE FOR SLIDE-REST.

THE accompanying drawing represents a combination of handle, pulley, and adjustable index for the slide-rest. It was suggested bit by bit to meet the requirements of an overhead, which is almost always in use when the lathe is running, it being as handy for sliding either traverse of the rest, with or without back-gear, as it is for screw-cutting, drilling from back-centre, cutter-driving, &c.; and as no addition or alteration is required to the ordinary two-slide-rest beyond the pulley fittings, it

be taken off or replaced at a moment's notice without disturbing the centring. Practically, however, there is seldom any occasion to move the bush at all; but as the general workman must be prepared for every possible contingency, it is desirable to have a quick and ready method of doing this if it should be required; and none can be much quicker or simpler than loosening two set screws. This will be better understood when the drawing has been explained; but these remarks are made as a preface to show the reason for the general arrangement. It may also be added that, while the particular object of carrying the handle-plate right across the pulley was to back it up well, and tie all firmly together, this has also the general advantage of balancing the handle well, and so avoids that disagreeable shaking down which so often occurs with the ordinary handle on a radial arm without any counterpoise, unless the collar of the slide-rest screw be tightened up to an extent which causes it to work with unpleasant stiffness. With the handle-plate now shown, the weight of the handle itself can, if necessary, be exactly balanced by simply screwing on a leaden button of the



was worth while to make these as efficient and complete as possible. But even where the pulley is not wanted, the general principle here shown is, perhaps, as simple as any for mounting an adjustable index counter. It is necessary to the correct action of the index that there should not be the slightest shake in its fitting, and, therefore, some kind of set screw would be essential in any case; while anything like a wobble when running is very offensive to the eye. So the first trouble of making the four set screws for the four faces of the

squared part of the slide-rest screw-shank is, perhaps, most satisfactory in the end, as they can be used to centre the bush and pulley to run with perfect accuracy, while they bind the fittings firmly to the screw-shank, and also furnish a stop by which the exact position of this adjustable fitting is secured. If two of the squared faces of this shank and the places of two of the four screws in the bush be marked to correspond, so that only the same two screws (being, of course, two at right angles to each other) may be moved, then the fitting may always

same weight at the opposite end of the plate. But I have not found that this is required where a wooden handle is used.

The adjustable index was, in my own case, first adopted for the special purpose of screw-cutting; but it would be quite impossible to say too much about the utility and convenience of the arrangement for general practice. Indeed, there is hardly a stage of any job where these indices (I have one on each handle) are not in constant use, from chucking the rough casting truly to graduating a finished counter by the division