

DECISION OF THE COMMISSIONER

INSUFFICIENCY: Introduction of new matter Rule 52

The Final Action under the circumstances well founded; but the problem was basically misrepresentation in the drawings and misleading statements in the disclosure which could have been resolved without having it referred to the Appeal Board.

FINAL ACTION: Withdrawn; amendments proposed accepted.

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IN THE MATTER OF a request for a review by the
Commissioner of Patents of the Examiner's Final
Action under Section 46 of the Patent Rules.

AND

IN THE MATTER OF a patent application serial
number 912,392 filed September 23, 1964 for
an invention entitled:

ELECTRONIC CALCULATING APPARATUS

Agent for Applicant

Messrs. Smart & Biggar
Ottawa, Ontario.

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This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated December 30, 1970 on application 912,392. This application was filed in the name of Howard M. Rathbun et al and refers to "Electronic Calculating Apparatus". The Patent Appeal Board conducted a hearing on November 18, 1971. Mr. R. Barrigar and Mr. L. Avant represented the applicant.

In the prosecution terminated by the Final Action the examiner refused the application for addition of new matter contrary to Section 52 of the Patent Rules, and for lack of sufficient disclosure to support the claims. In this action the examiner stated:

It is stated on page 5 lines 20 to 22 that the first P1 pulse resets flip-flops F1 and F2 to their zero states, however reference to the disclosure and drawings as filed only enables one skilled in the

art to infer that F1 and F2 are in their zero states at the time P1-1 is received by flip-flop F1. Figure 2 does not show means to apply P1 pulses to F2 and there is no suggestion in the original disclosure that P1 pulses are in fact applied to flip-flop F2. Moreover reference to Figure 3 shows that when pulse P1-5, which one infers as corresponding to P1-1 in its effects, is applied to flip-flop F1 it resets flip-flop F1 to its zero state with flip-flop F2 already being in its zero state.

The new matter appearing on page 5 lines 20 to 22 can therefore not be inferred from the disclosure as filed and additionally appears to be misdescriptive.

It is further considered that in the absence of specific teachings of the use of only two flip-flops to count according to the Gray-code, that there is insufficient disclosure to teach the generation of word time identification pulses W1, W2, W3 and W4 as is required for correct operation of applicant's apparatus. In his arguments applicant states that two flip-flop Gray-code counters are well known in the art but fails to substantiate his statement by indicating a suitable reference teaching such counters.

Regarding the new matter introduced on pages 16 to 18 applicant has failed to present an argument justifying the insertion of this matter. It is the Examiner's opinion that there was no clear teaching in the disclosure and drawings, as originally filed, to enable one skilled in the art to infer the operation of flip-flops F3, F4, F5 and F6 as it is now described. It is further considered that even the present description is so vague and insufficient that one skilled in the art would not be able to build a mechanism, having the features desired, without considerable experimentation.

In view of the above reasons, applicant's disclosure is still rejected for introducing new matter contrary to Rule 52 of the Patent Rules. It is further refused for being insufficient to enable one skilled in the art to construct applicant's apparatus as required by Section 36(2) of the Patent Act.

Since applicant has not disclosed and taught the presently claimed apparatus with sufficient detail to enable one skilled in the art to construct it, all claims are refused.

In the applicant's response of March 30, 1971 he states:

With particular reference to the Official letter of the 30th of December, 1970 applicant submits that

the continued rejection of the amendments at pages 5 and 16 to 18 cannot be sustained on the basis of the statements contained in the Official letter. First with respect to the matter at Page 5, lines 20 to 22 it appears that the Examiner has overlooked the argument contained in Schedule B (the response to the Official letter of 21 August, 1970), and it is disappointing at the Final Action stage that the Examiner has not in any way dealt with this argument. The Examiner appears to misunderstand the operation of the circuit in question. The Examiner appears to be under the impression that Figure 3 establishes that flip-flop F1 and F2 of Figure 2 are already in their zero states at the time of pulse P1-1, notwithstanding that Page 5, lines 20 to 22 state that both flip-flops are reset to their zero states by the P1-1 pulse. The Examiner has referred to the application of P1-1 solely to flip-flop F1 and to the absence in Figure 2 of means to apply P1 pulses to flip-flop F2. This statement by the Examiner suggests that he does not understand that the P1 pulses are actually applied to the input of the counter 2 in which F1 and F2 are disposed and interconnected. It is submitted that anyone skilled in the art would comprehend this and thus realise that what is said on page 5, lines 20 to 22 is clearly inferable from the disclosure as filed and is certainly not misdescriptive.

With respect to the flip-flop Gray-code counters, applicant is puzzled by the Examiner's comment that the applicant has failed to substantiate the statement that these are well-known in the art by indicating a suitable reference. Applicant reiterates that these flip-flop Gray-code counters are well-known in the art and is embarrassed by what appears to be some question as to the good faith of the applicant in making this statement.

The specification as originally filed described Figure 7 as a schematic illustration of a mechanism for converting the keyboard digits into binary form. Present Pages 16 to 18 merely describe in more detail what happens in the operation of Figure 7 and which was more generally described in the passages running from original Page 12, line 22 to original Page 13, line 19. The so-called "new matter" consists merely of a step-by-step example of how any given number entered into the digit keys is converted into binary form, in this case the decimal number 99 being converted to the binary number 110011. The original description states succinctly with reference to Figure 7 and to an algorithm how the digits of a given number entered

into the keyboard are converted into a corresponding binary member. Assuming that a person skilled in the art can follow a schematic diagram and understand an algorithm, as well as appreciate the meaning of a 5211 code, he would readily be able to start with the decimal number 99 and trace its progress through Figure 7 until it appears serially in binary form at point d. The so-called "new matter" merely saves the person skilled in the art this exercise.

After reviewing the grounds for rejection set forth by the examiner, as well as the arguments set forth by the applicant, I am satisfied that the rejection, under the circumstances, was well founded. However, I find the problem could have been resolved without having it referred to the Patent Appeal Board, I might add that I find no fault with the action of the examiner as repeated attempts were made for an interview with the applicant. On the other hand the applicant had lost technical assistance due to circumstances beyond his control.

At the hearing the problem basically resolved itself into one of misleading illustrations in the drawings and some misleading terminology in the disclosure. Figure 3 commenced with the occurrence of a P1 pulse instead of illustrating the state of the various signals both immediately before and immediately following the occurrence of the first P1 pulse. Figure 2, designated by blocks - reference numerals 1, 2 and 3, is also misleading. Block 2(F1) is shown as receiving the P1 pulse, however, block 2(F2) should also have been shown as receiving pulse P1.

I am satisfied that the foregoing is a correct interpretation to be placed on Figures 2 and 3 of the drawing and this was amply demonstrated at the hearing by Mr. L. Avant, who is considered an expert in the field.

A change in the terminology of page 5 was also discussed and a voluntary amendment was presented after the hearing. This amendment appears to be satisfactory. A change to clarify Figures 1 and 2 of the drawing was also received by this same amendment.

I recommend that, in view of the unusual circumstances, the Final Action of the examiner be withdrawn and that the amendment be accepted and entered.

R.E. Thomas,
Chairman, Patent Appeal Board.

I concur with the findings of the Patent Appeal Board and withdraw the Final Action and direct the amendment to be entered. The application will be returned to the examiner for resumption of prosecution.

Decision accordingly,

Dated at Ottawa, Ontario
this 24th day of November,
1971.

A.M. Laidlaw,
Commissioner of Patents.